



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

03C0

6/28/01

#3

JOHN F. LUK

Serial No.: 09/845,073  
Filing date: April 27, 2001  
Title: DIODE LIGHTING SYSTEM  
Examiner:  
Art Unit:  
Docket No.: P-20

Honorable Director of Patents  
Washington, D.C. 20231

**RESPONSE**

Sir:

In response to the Patent office's Notice dated June 27, 2001 received in the above identified patent application, we now enclose a complete new set of drawing sheets (32 pages), all now with the "appropriate margins", that is, with a top margin of at least one 1 inch, a left side margin of at least 1 inch, a right side margin of at least 5/8 inch, and a bottom margin of at least 3/8 inch.

A copy of said Notice is also attached per the request of the Patent Office.

Applicant respectfully requests the Patent Office to advise if the enclosed new set of drawing sheets are acceptable for both the "18 month publication" and the issuance of a patent from this application.

We await receipt of your response to this inquiry.

OVER FOR  
1.8(u) mail cert.



Respectfully submitted,

**LACKENBACH SIEGEL**

By: \_\_\_\_\_

HENRY A. MARZULLO, JR.

Reg. No. 20,910

Dated: July 25, 2001  
One Chase Road  
Scarsdale, New York 10583  
914-723-4300

HAM:medm

Certificate of Mailing  
I hereby certify that this correspondence is being deposited with the  
United States Postal Service as first class mail under 37 CFR 1.8(a) Certt.  
in an envelope addressed to: Commissioner of Patents and Trademarks,  
Washington, D.C. 20231.

Dated: \_\_\_\_\_

Henry A. Marzullo, Jr.

Applicant hereby petitions that any and all extensions of the term  
necessary to render this response timely be granted. Costs for such  
extension(s) and or any other fee due with this paper, not fully covered  
by an enclosed check may be charged to Deposit Account #10-0100.



## UNITED STATES PATENT AND TRADEMARK OFFICE

COMMISSIONER FOR PATENTS  
UNITED STATES PATENT AND TRADEMARK OFFICE  
WASHINGTON, D.C. 20231  
www.uspto.gov

APPLICATION NUMBER	FILING/RECEIPT DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NUMBER
09/845,073	04/27/2001	John F. Luk	P-20

CONFIRMATION NO. 1674

## FORMALITIES LETTER



\*OC000000006230687\*

LACKENBACH SIEGEL MARZULLO  
ARONSON & GREENSPAN, P.C.  
One Chase Road  
Scarsdale, NY 10583

Date Mailed: 06/27/2001

## NOTICE TO FILE CORRECTED APPLICATION PAPERS

*Filing Date Granted*

This application has been accorded an Application Number and Filing Date. The application, however, is informal since it does not comply with the regulations for the reason(s) indicated below. Applicant is given **TWO MONTHS** from the date of this Notice within which to correct the informalities indicated below. Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a)

The required item(s) identified below must be timely submitted to avoid abandonment:

- Substitute drawings in compliance with 37 CFR 1.84 because:
  - drawing sheets do not have the appropriate margin(s) (see 37 CFR 1.84(g)). Each sheet must include a top margin of at least 2.5 cm. (1 inch), a left side margin of at least 2.5 cm. (1 inch), a right side margin of at least 1.5 cm. (5/8 inch), and a bottom margin of at least 1.0 cm. (3/8 inch);

*A copy of this notice **MUST** be returned with the reply.*

H-T

Customer Service Center

Initial Patent Examination Division (703) 308-1202

PART 2 - COPY TO BE RETURNED WITH RESPONSE

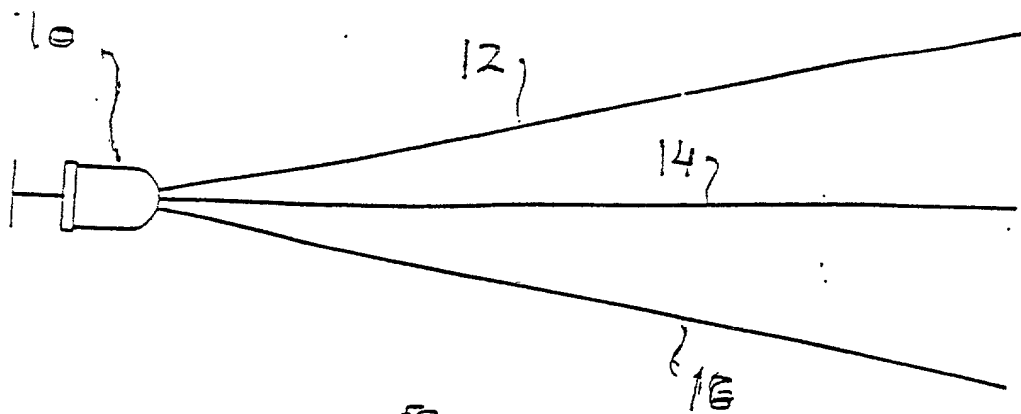


FIG. 1A

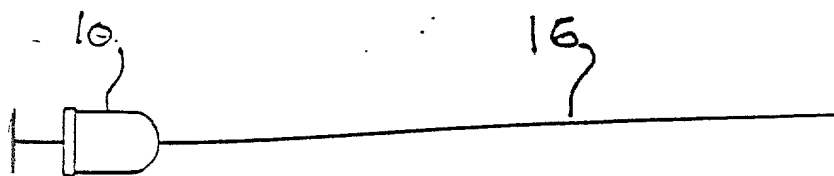
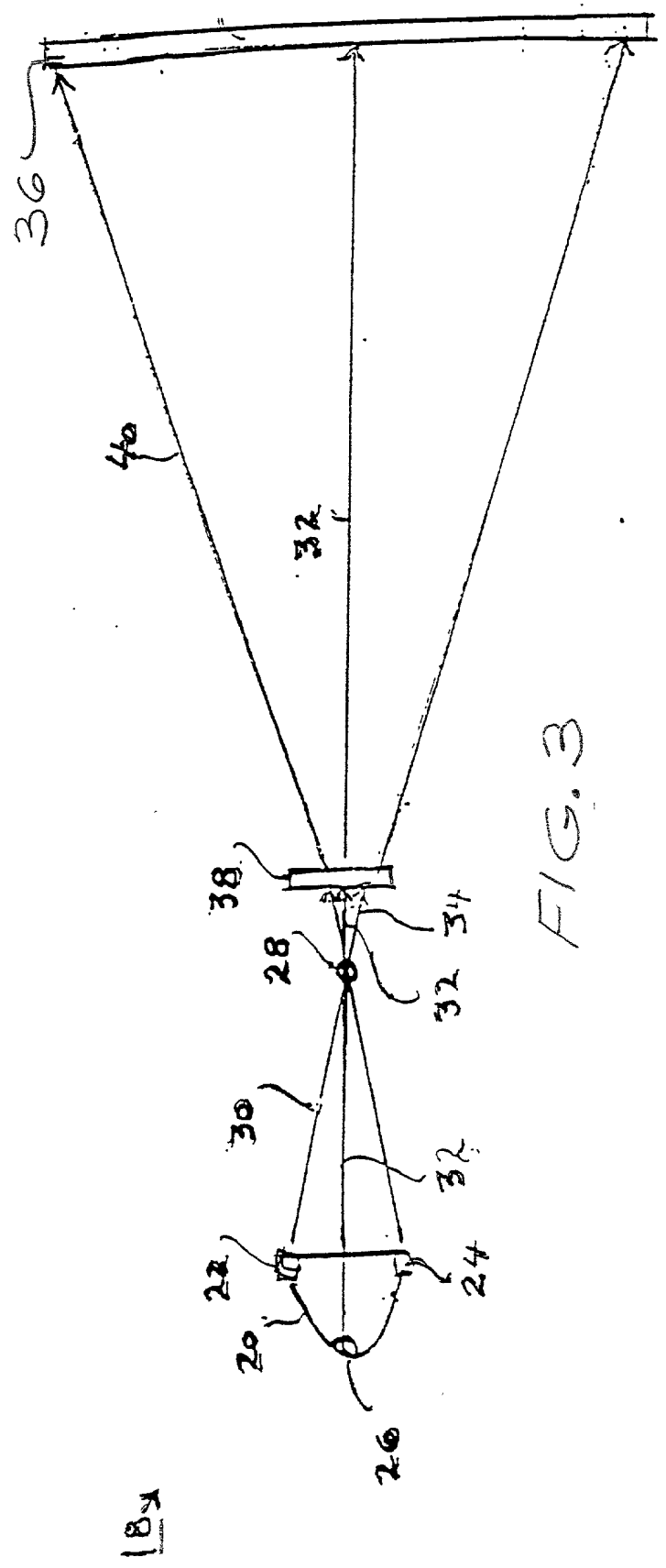
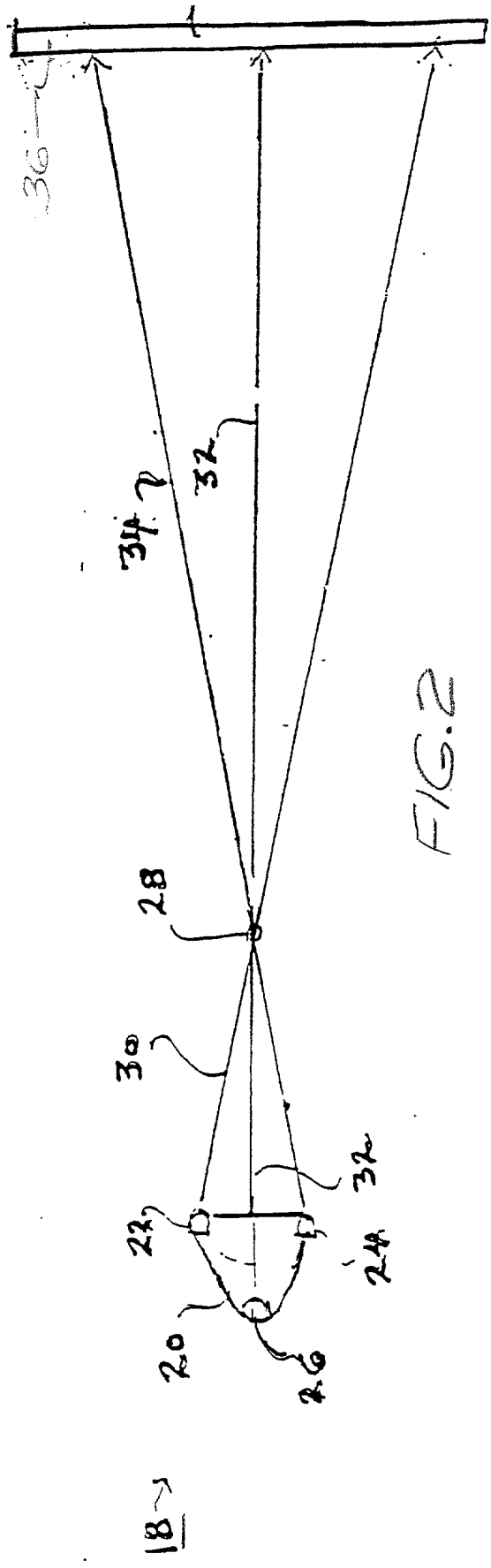


FIG. 1B

FIG. 2



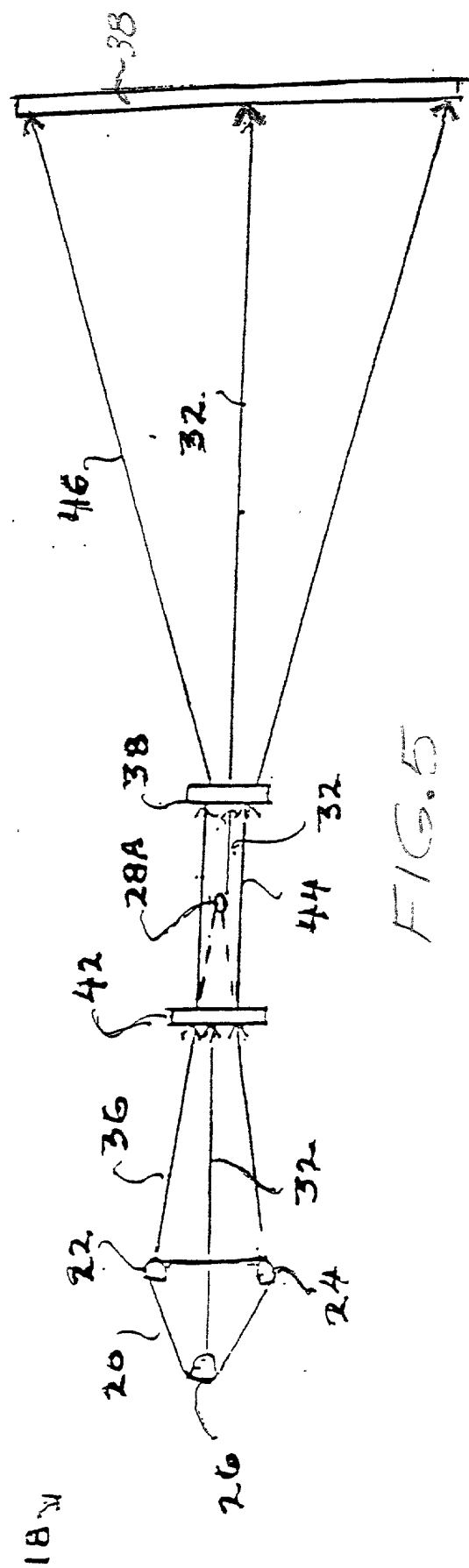
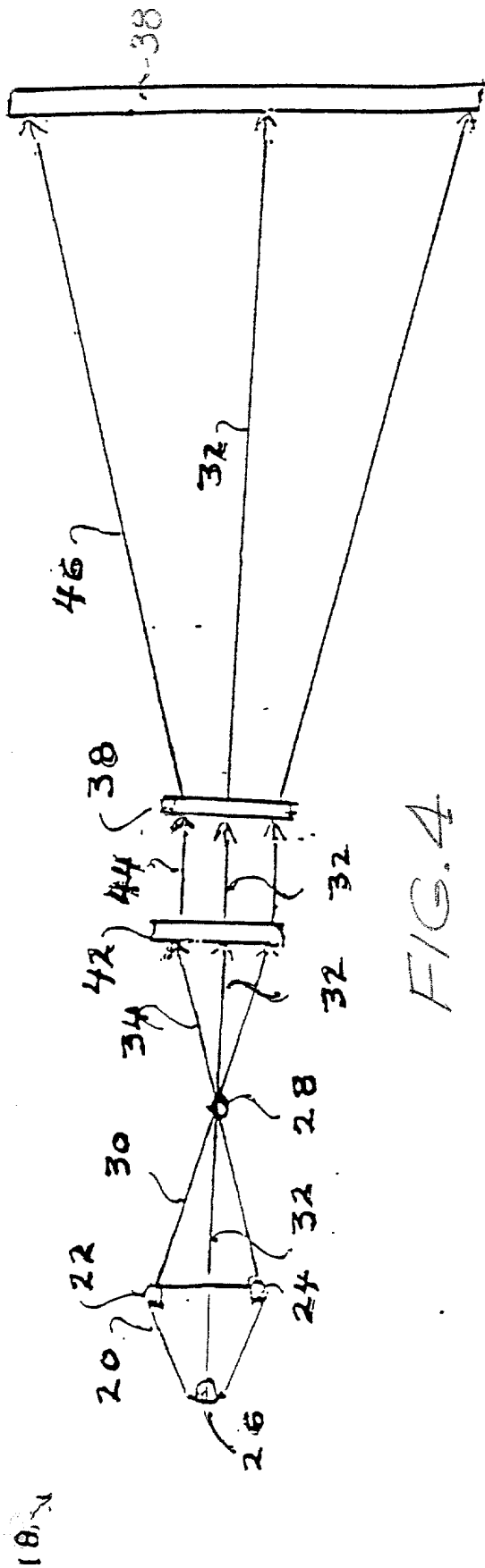


FIG. 6

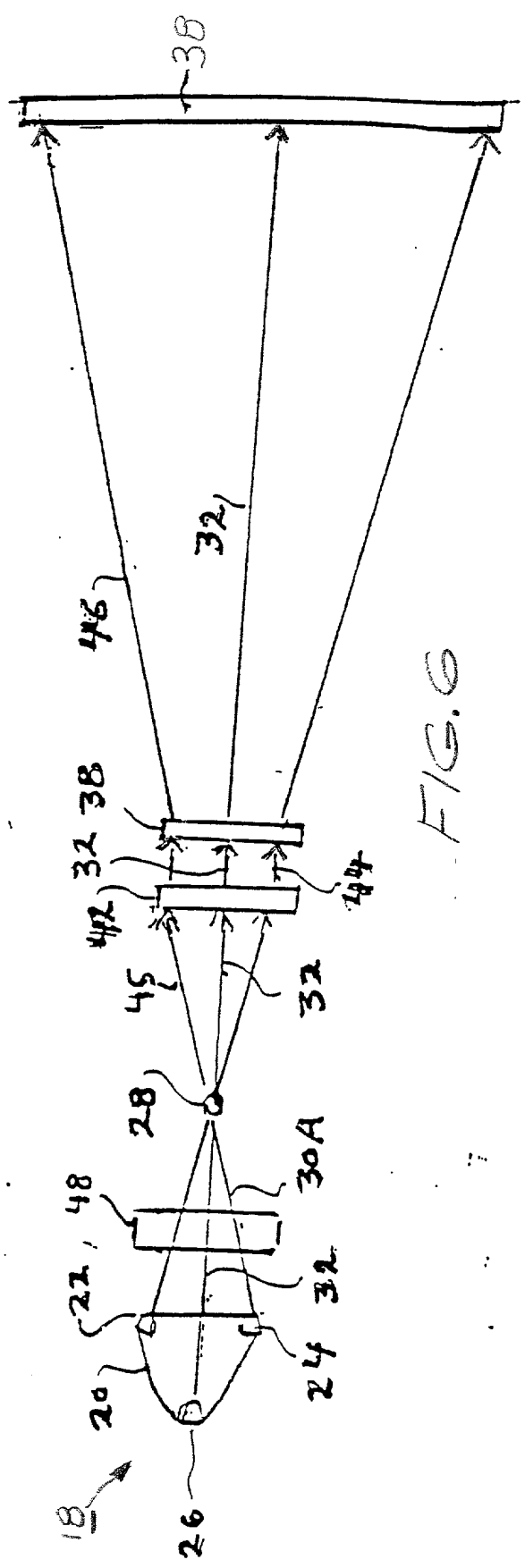


FIG. 6

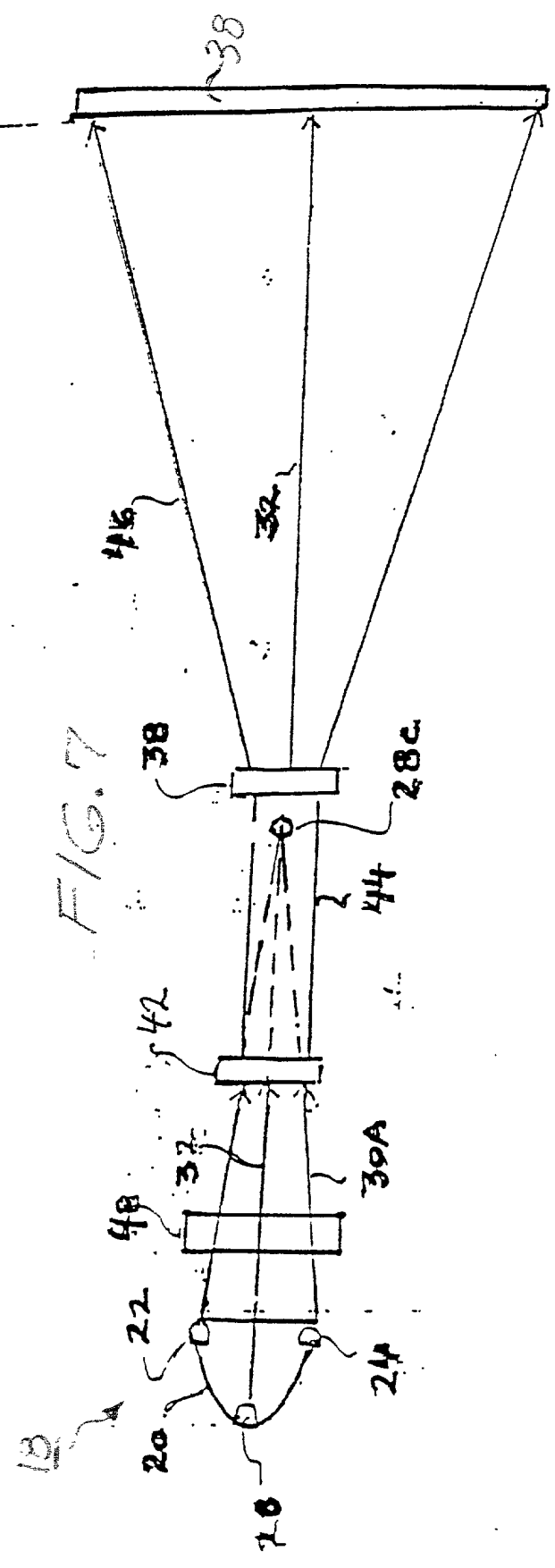


FIG. 7

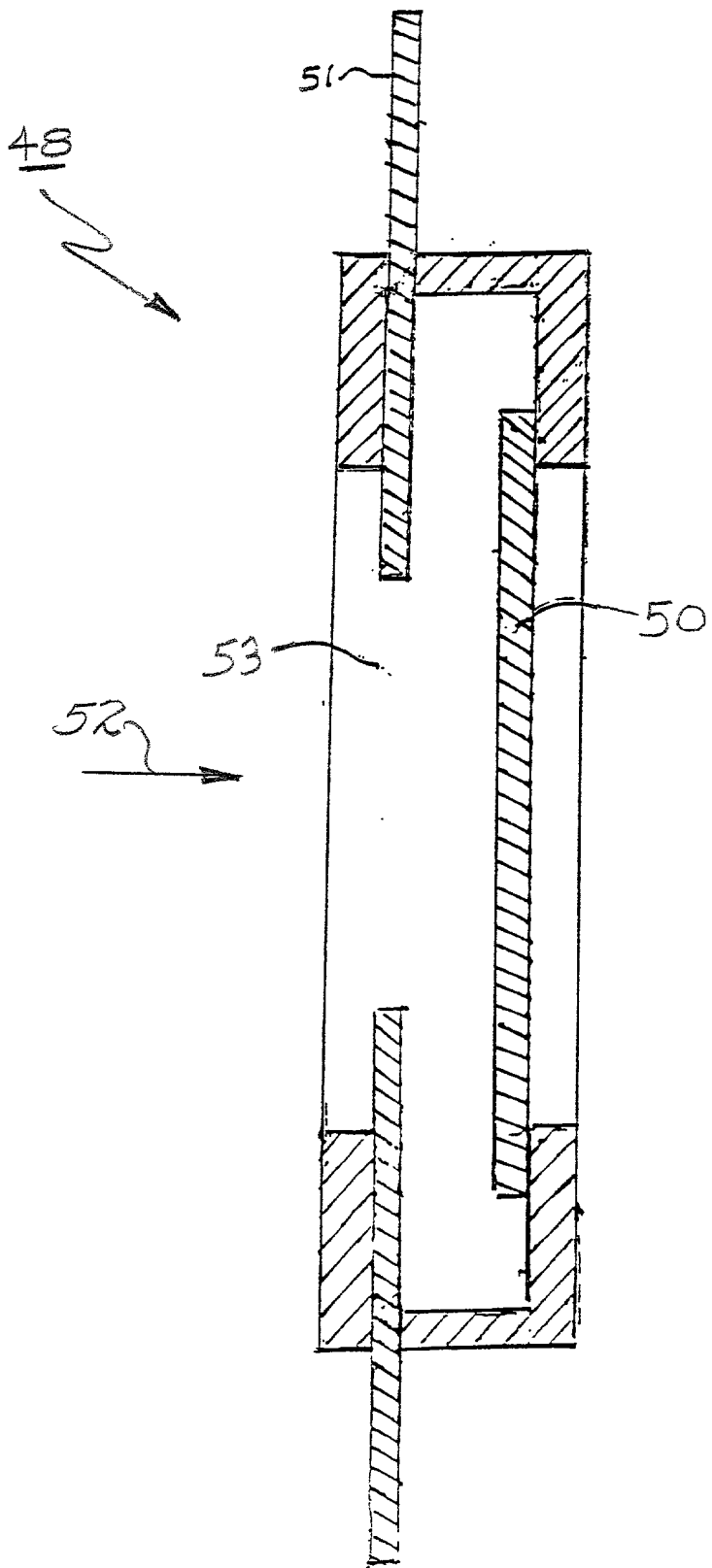


FIG. 8





FIG. 10 is a perspective view of the optical system of FIG. 9, showing the light rays 130, 132, 134, 136, 138, 140, 142, 144, 146, 148, 150, 152, 154, 156, 158, 160, 162, 164, 166, 168, 170, 172, 174, 176, 178, 180, 182, 184, 186, 188, 190, 192, 194, 196, 198, 200, 202, 204, 206, 208, 210, 212, 214, 216, 218, 220, 222, 224, 226, 228, 230, 232, 234, 236, 238, 240, 242, 244, 246, 248, 250, 252, 254, 256, 258, 260, 262, 264, 266, 268, 270, 272, 274, 276, 278, 280, 282, 284, 286, 288, 290, 292, 294, 296, 298, 300, 302, 304, 306, 308, 310, 312, 314, 316, 318, 320, 322, 324, 326, 328, 330, 332, 334, 336, 338, 340, 342, 344, 346, 348, 350, 352, 354, 356, 358, 360, 362, 364, 366, 368, 370, 372, 374, 376, 378, 380, 382, 384, 386, 388, 390, 392, 394, 396, 398, 400, 402, 404, 406, 408, 410, 412, 414, 416, 418, 420, 422, 424, 426, 428, 430, 432, 434, 436, 438, 440, 442, 444, 446, 448, 450, 452, 454, 456, 458, 460, 462, 464, 466, 468, 470, 472, 474, 476, 478, 480, 482, 484, 486, 488, 490, 492, 494, 496, 498, 500, 502, 504, 506, 508, 510, 512, 514, 516, 518, 520, 522, 524, 526, 528, 530, 532, 534, 536, 538, 540, 542, 544, 546, 548, 550, 552, 554, 556, 558, 560, 562, 564, 566, 568, 570, 572, 574, 576, 578, 580, 582, 584, 586, 588, 590, 592, 594, 596, 598, 600, 602, 604, 606, 608, 610, 612, 614, 616, 618, 620, 622, 624, 626, 628, 630, 632, 634, 636, 638, 640, 642, 644, 646, 648, 650, 652, 654, 656, 658, 660, 662, 664, 666, 668, 670, 672, 674, 676, 678, 680, 682, 684, 686, 688, 690, 692, 694, 696, 698, 700, 702, 704, 706, 708, 710, 712, 714, 716, 718, 720, 722, 724, 726, 728, 730, 732, 734, 736, 738, 740, 742, 744, 746, 748, 750, 752, 754, 756, 758, 760, 762, 764, 766, 768, 770, 772, 774, 776, 778, 780, 782, 784, 786, 788, 790, 792, 794, 796, 798, 800, 802, 804, 806, 808, 810, 812, 814, 816, 818, 820, 822, 824, 826, 828, 830, 832, 834, 836, 838, 840, 842, 844, 846, 848, 850, 852, 854, 856, 858, 860, 862, 864, 866, 868, 870, 872, 874, 876, 878, 880, 882, 884, 886, 888, 890, 892, 894, 896, 898, 900, 902, 904, 906, 908, 910, 912, 914, 916, 918, 920, 922, 924, 926, 928, 930, 932, 934, 936, 938, 940, 942, 944, 946, 948, 950, 952, 954, 956, 958, 960, 962, 964, 966, 968, 970, 972, 974, 976, 978, 980, 982, 984, 986, 988, 990, 992, 994, 996, 998, 1000.

18

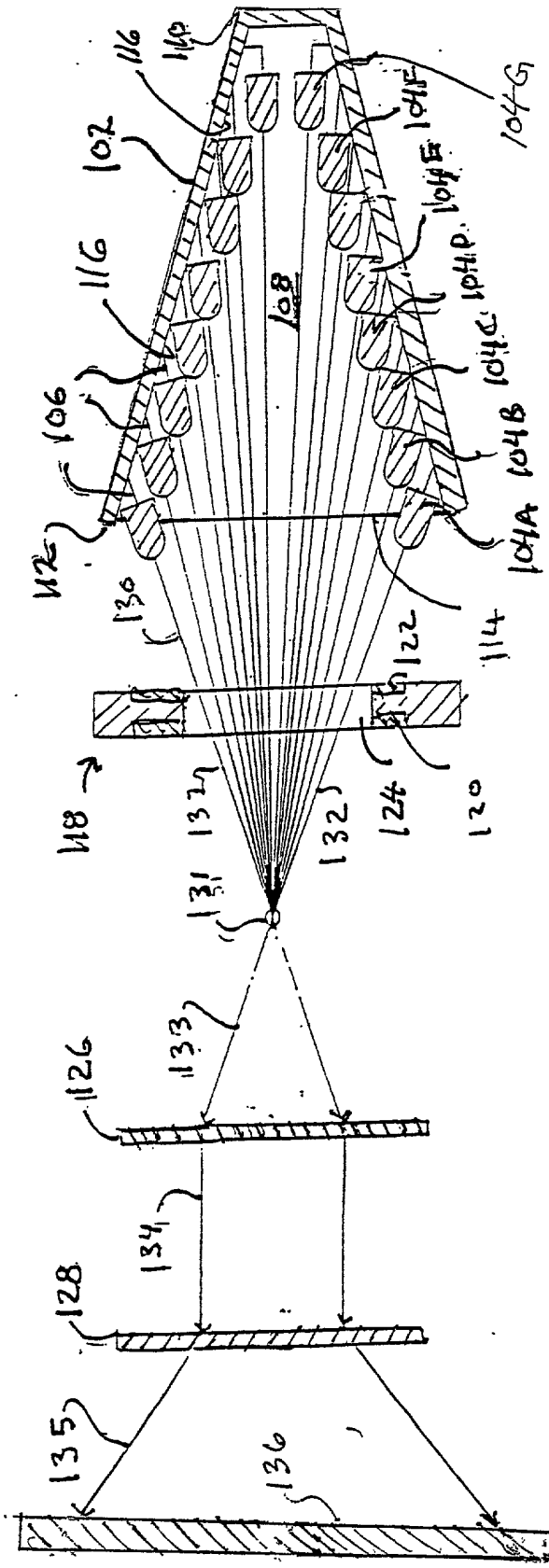
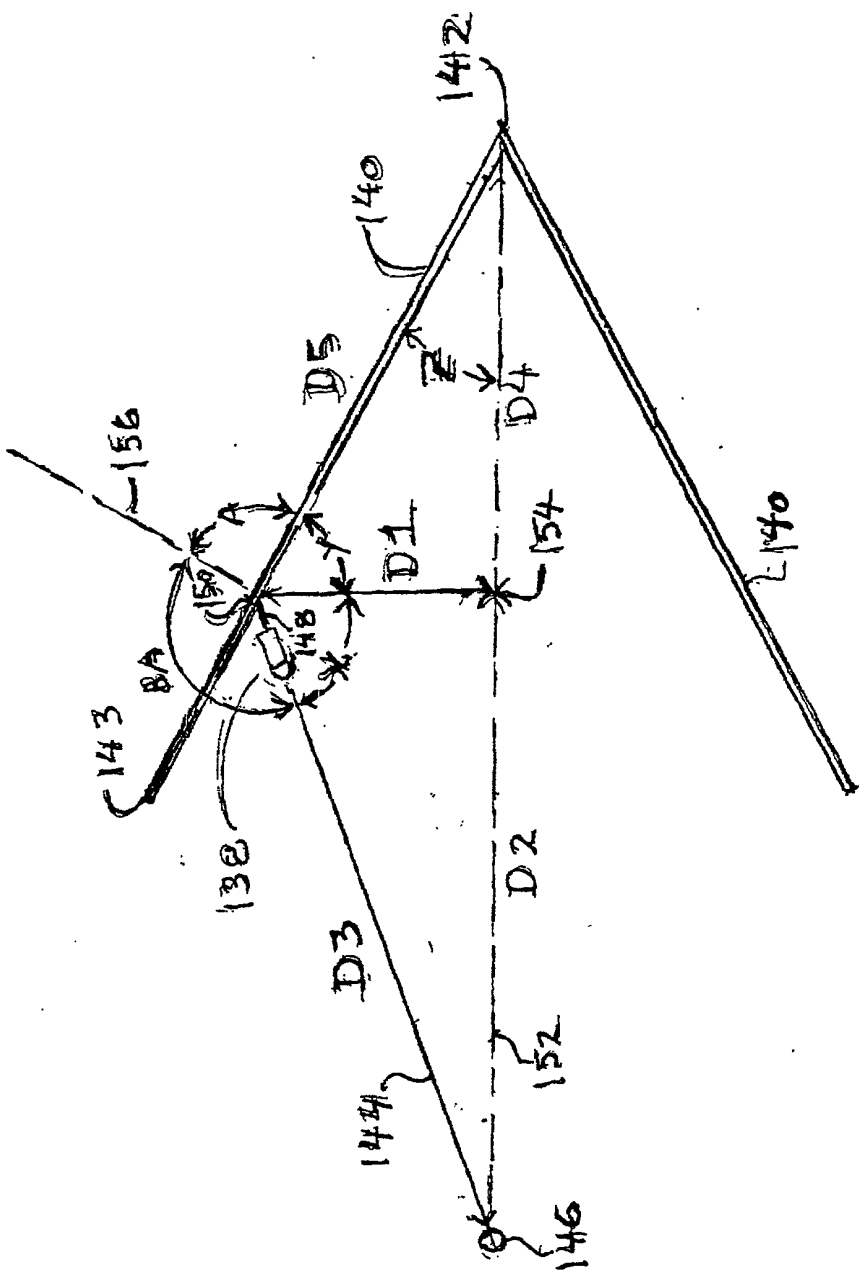


FIGURE 10



二六二

FIG. 12A is a schematic diagram of a system for measuring the distance between two points in a 3D space. The system includes a camera 146, a target 147, and a series of vertical rods 148, 149, 150, 151, 152. The rods are positioned at different distances from the camera, and the target is positioned at a distance D1 from the camera. The distance D2 is the distance between the camera and the target. The diagram shows the camera's field of view and the target's position relative to the rods.

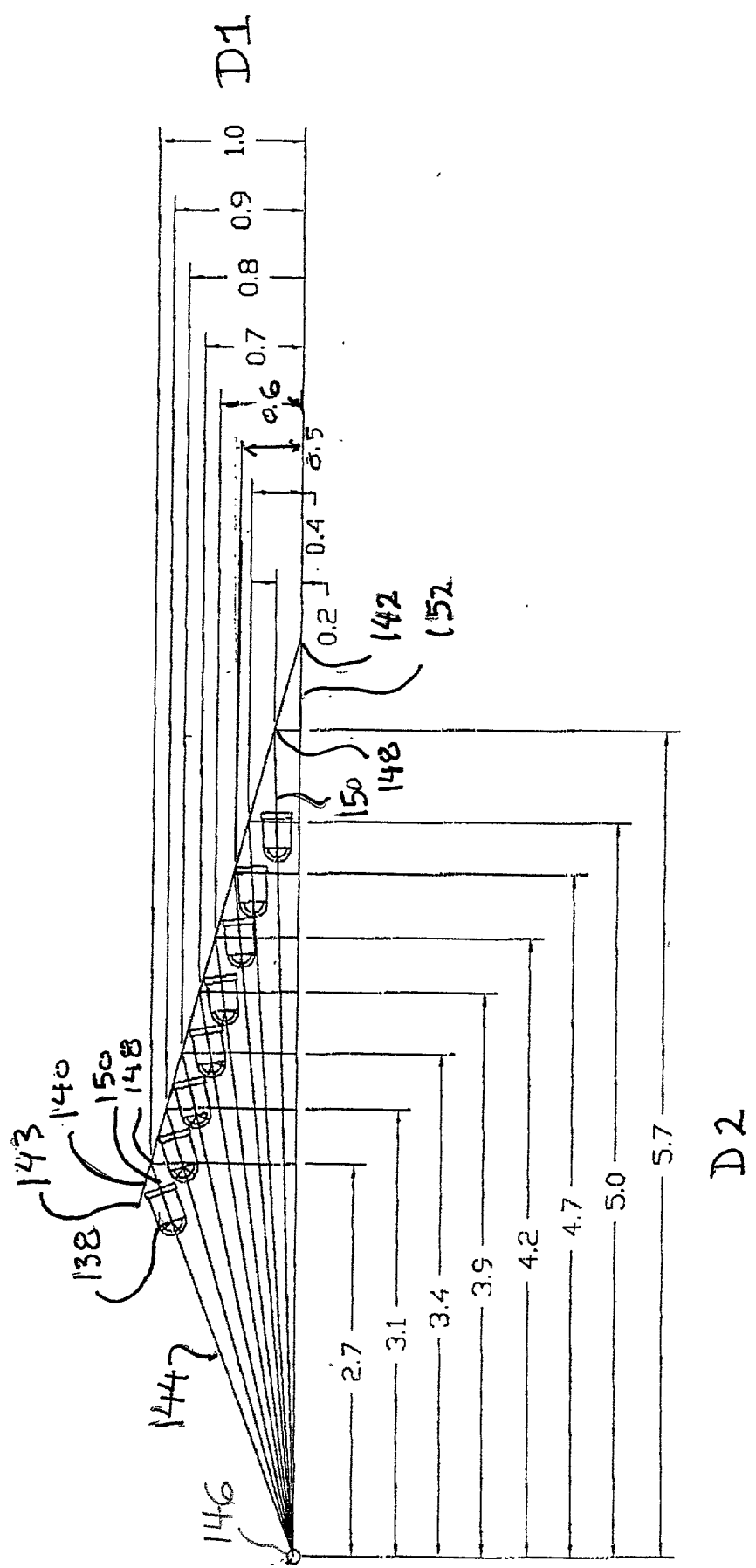
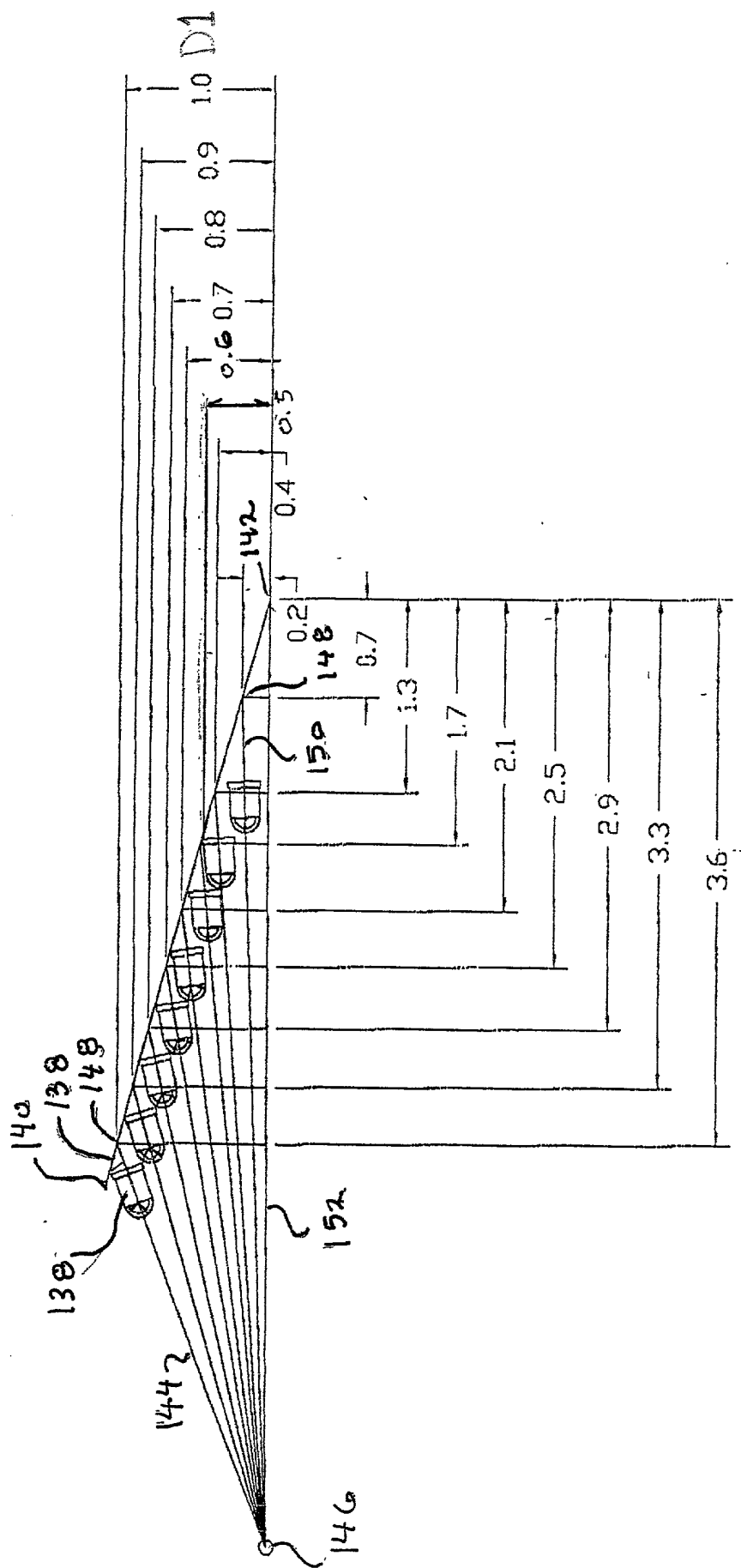


FIG. 12A



47

FIG. 12B

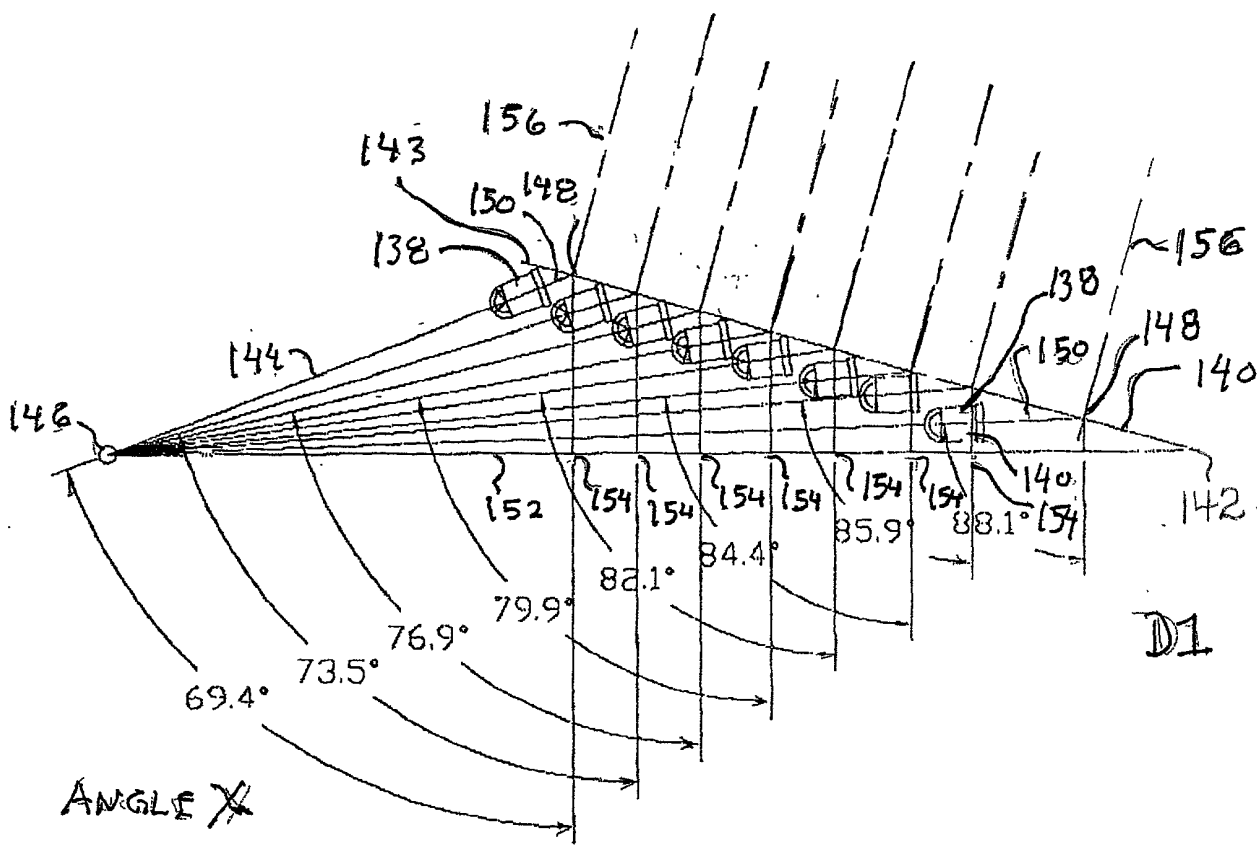


FIG. 12C

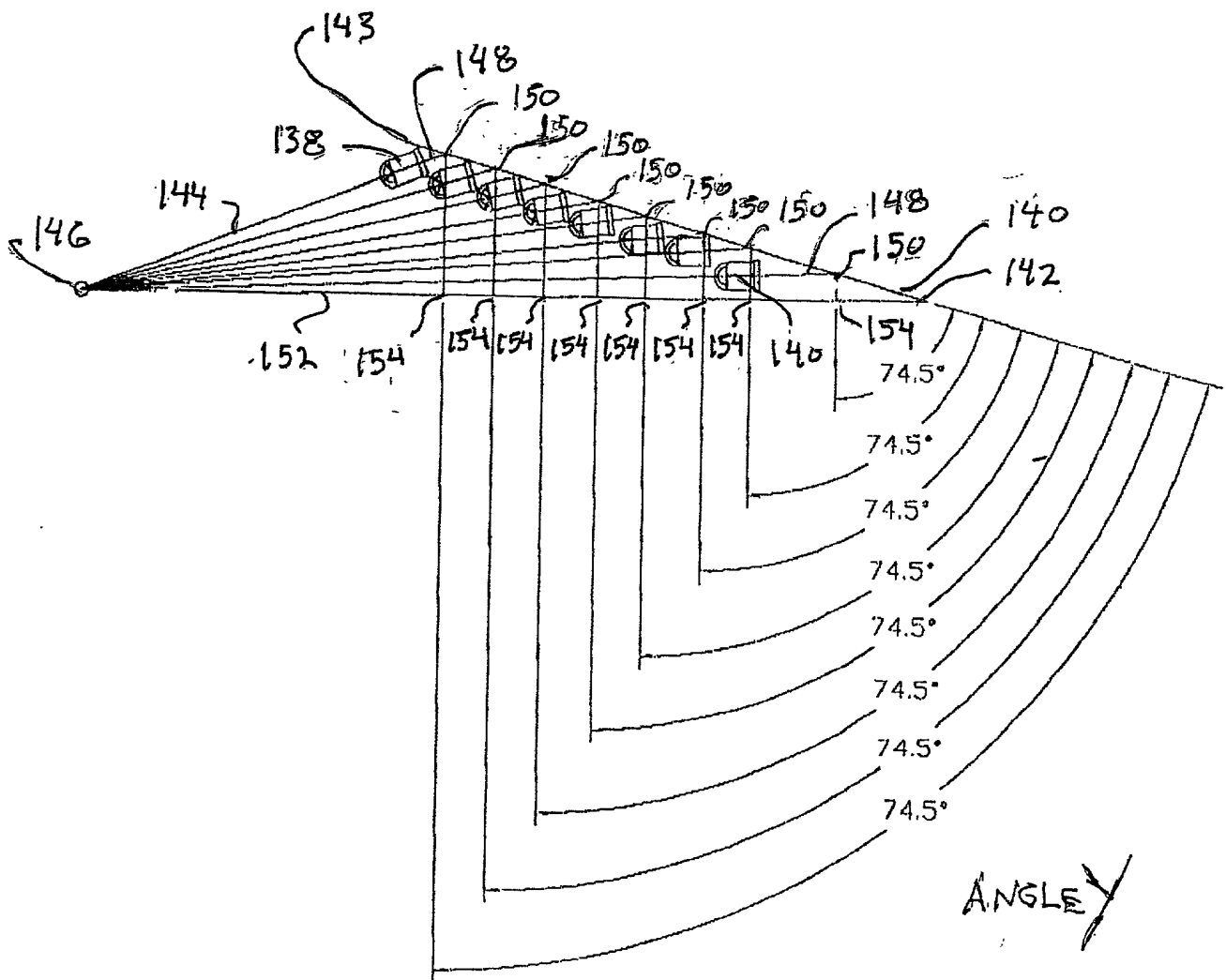


FIG. 12D

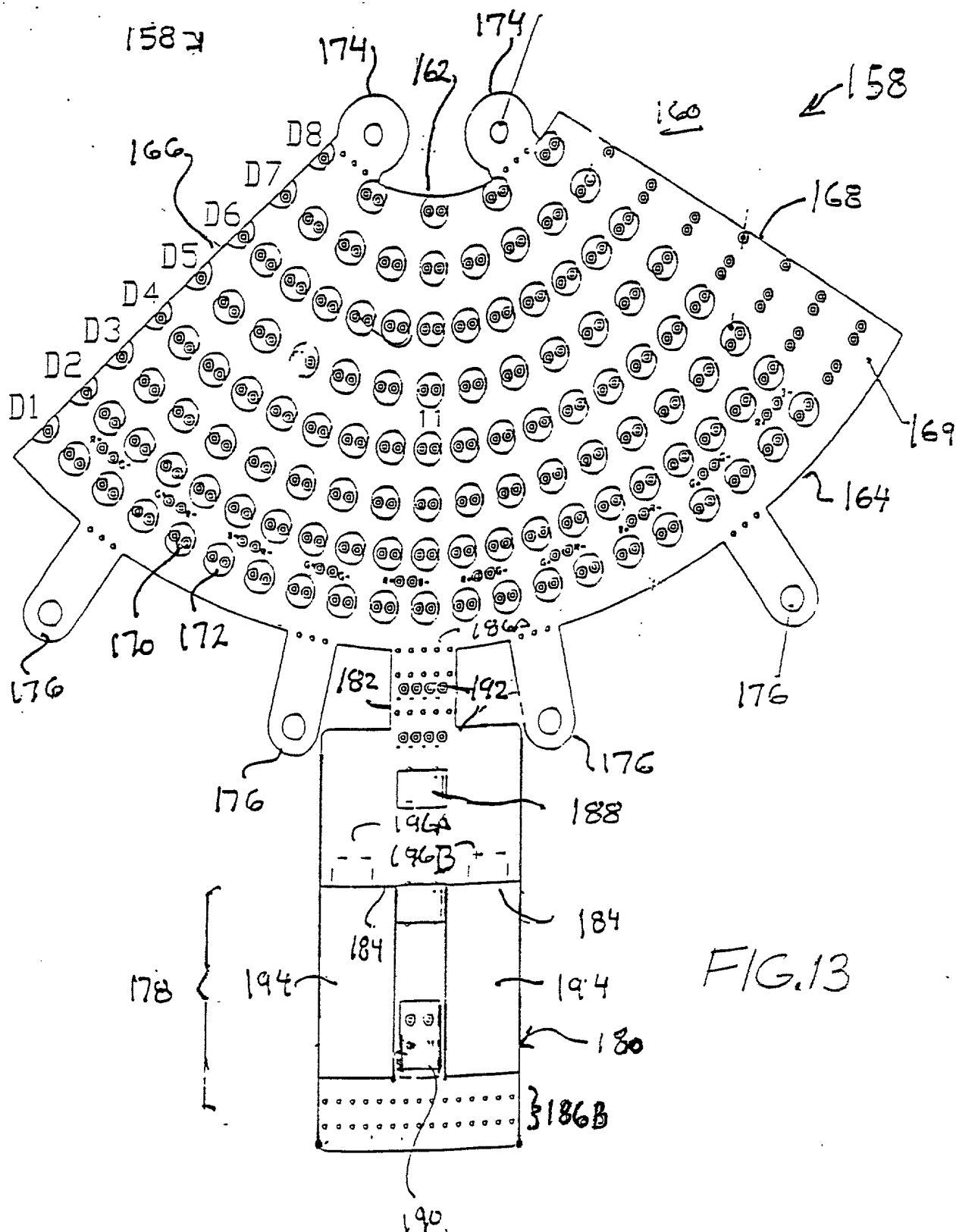


FIG. 13



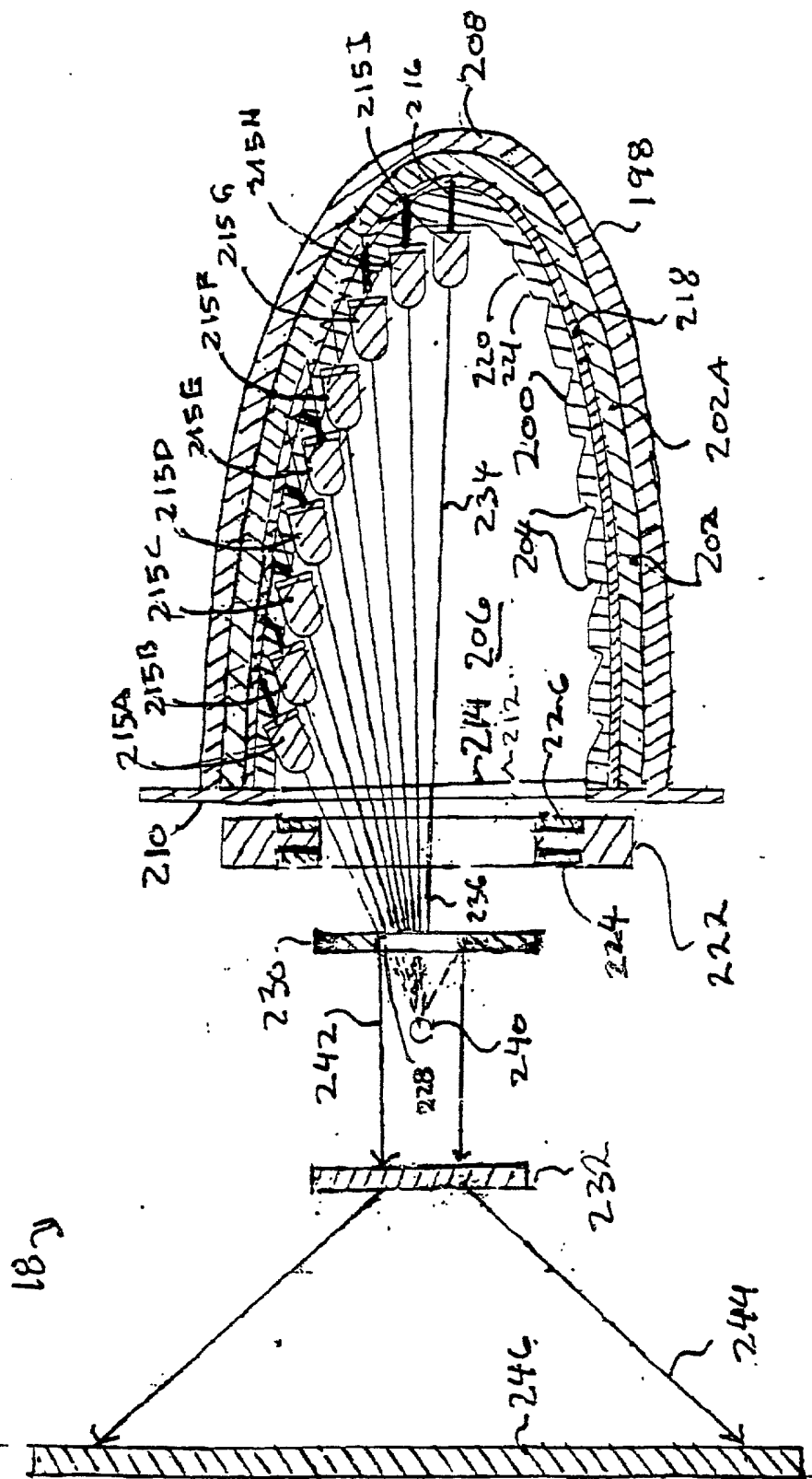


FIG. 14

FIG. 15 is a schematic diagram of a system for projecting a light beam onto a screen. The system includes a light source 260, a lens 270, a mirror 272, and a screen 280. The light beam is projected from the light source 260 through the lens 270 and the mirror 272 onto the screen 280. The diagram also shows a series of light rays 250A, 250B, 250C, 250D, 250E, 250F, 250G, 250H, 250I, 250J, 250K, 250L, 250M, 250N, 250O, 250P, 250Q, 250R, 250S, 250T, 250U, 250V, 250W, 250X, 250Y, 250Z, 250AA, 250AB, 250AC, 250AD, 250AE, 250AF, 250AG, 250AH, 250AI, 250AJ, 250AK, 250AL, 250AM, 250AN, 250AO, 250AP, 250AQ, 250AR, 250AS, 250AT, 250AU, 250AV, 250AW, 250AX, 250AY, 250AZ, 250BA, 250BB, 250BC, 250BD, 250BE, 250BF, 250BG, 250BH, 250BI, 250BJ, 250BK, 250BL, 250BM, 250BN, 250BO, 250BP, 250BQ, 250BR, 250BS, 250BT, 250BU, 250BV, 250BW, 250BX, 250BY, 250BZ, 250CA, 250CB, 250CC, 250CD, 250CE, 250CF, 250CG, 250CH, 250CI, 250CJ, 250CK, 250CL, 250CM, 250CN, 250CO, 250CP, 250CQ, 250CR, 250CS, 250CT, 250CU, 250CV, 250CW, 250CX, 250CY, 250CZ, 250DA, 250DB, 250DC, 250DD, 250DE, 250DF, 250DG, 250DH, 250DI, 250DJ, 250DK, 250DL, 250DM, 250DN, 250DO, 250DP, 250DQ, 250DR, 250DS, 250DT, 250DU, 250DV, 250DW, 250DX, 250DY, 250DZ, 250EA, 250EB, 250EC, 250ED, 250EE, 250EF, 250EG, 250EH, 250EI, 250EJ, 250EK, 250EL, 250EM, 250EN, 250EO, 250EP, 250EQ, 250ER, 250ES, 250ET, 250EU, 250EV, 250EW, 250EX, 250EY, 250EZ, 250FA, 250FB, 250FC, 250FD, 250FE, 250FF, 250FG, 250FH, 250FI, 250FJ, 250FK, 250FL, 250FM, 250FN, 250FO, 250FP, 250FQ, 250FR, 250FS, 250FT, 250FU, 250FV, 250FW, 250FX, 250FY, 250FZ, 250GA, 250GB, 250GC, 250GD, 250GE, 250GF, 250GG, 250GH, 250GI, 250GJ, 250GK, 250GL, 250GM, 250GN, 250GO, 250GP, 250GQ, 250GR, 250GS, 250GT, 250GU, 250GV, 250GW, 250GX, 250GY, 250GZ, 250HA, 250HB, 250HC, 250HD, 250HE, 250HF, 250HG, 250HH, 250HI, 250HJ, 250HK, 250HL, 250HM, 250HN, 250HO, 250HP, 250HQ, 250HR, 250HS, 250HT, 250HU, 250HV, 250HW, 250HX, 250HY, 250HZ, 250IA, 250IB, 250IC, 250ID, 250IE, 250IF, 250IG, 250IH, 250II, 250IJ, 250IK, 250IL, 250IM, 250IN, 250IO, 250IP, 250IQ, 250IR, 250IS, 250IT, 250IU, 250IV, 250IW, 250IX, 250IY, 250IZ, 250JA, 250JB, 250JC, 250JD, 250JE, 250JF, 250JG, 250JH, 250JI, 250JJ, 250JK, 250JL, 250JM, 250JN, 250JO, 250JP, 250JQ, 250JR, 250JS, 250JT, 250JU, 250JV, 250JW, 250JX, 250JY, 250JZ, 250KA, 250KB, 250KC, 250KD, 250KE, 250KF, 250KG, 250KH, 250KI, 250KJ, 250KK, 250KL, 250KM, 250KN, 250KO, 250KP, 250KQ, 250KR, 250KS, 250KT, 250KU, 250KV, 250KW, 250KX, 250KY, 250KZ, 250LA, 250LB, 250LC, 250LD, 250LE, 250LF, 250LG, 250LH, 250LI, 250LJ, 250LK, 250LL, 250LM, 250LN, 250LO, 250LP, 250LQ, 250LR, 250LS, 250LT, 250LU, 250LV, 250LW, 250LX, 250LY, 250LZ, 250MA, 250MB, 250MC, 250MD, 250ME, 250MF, 250MG, 250MH, 250MI, 250MJ, 250MK, 250ML, 250MM, 250MN, 250MO, 250MP, 250MQ, 250MR, 250MS, 250MT, 250MU, 250MV, 250MW, 250MX, 250MY, 250MZ, 250NA, 250NB, 250NC, 250ND, 250NE, 250NF, 250NG, 250NH, 250NI, 250NJ, 250NK, 250NL, 250NM, 250NN, 250NO, 250NP, 250NQ, 250NR, 250NS, 250NT, 250NU, 250NV, 250NW, 250NX, 250NY, 250NZ, 250OA, 250OB, 250OC, 250OD, 250OE, 250OF, 250OG, 250OH, 250OI, 250OJ, 250OK, 250OL, 250OM, 250ON, 250OO, 250OP, 250OQ, 250OR, 250OS, 250OT, 250OU, 250OV, 250OW, 250OX, 250OY, 250OZ, 250PA, 250PB, 250PC, 250PD, 250PE, 250PF, 250PG, 250PH, 250PI, 250PJ, 250PK, 250PL, 250PM, 250PN, 250PO, 250PP, 250PQ, 250PR, 250PS, 250PT, 250PU, 250PV, 250PW, 250PX, 250PY, 250PZ, 250QA, 250QB, 250QC, 250QD, 250QE, 250QF, 250QG, 250QH, 250QI, 250QJ, 250QK, 250QL, 250QM, 250QN, 250QO, 250QP, 250QQ, 250QR, 250QS, 250QT, 250QU, 250QV, 250QW, 250QX, 250QY, 250QZ, 250RA, 250RB, 250RC, 250RD, 250RE, 250RF, 250RG, 250RH, 250RI, 250RJ, 250RK, 250RL, 250RM, 250RN, 250RO, 250RP, 250RQ, 250RR, 250RS, 250RT, 250RU, 250RV, 250RW, 250RX, 250RY, 250RZ, 250SA, 250SB, 250SC, 250SD, 250SE, 250SF, 250SG, 250SH, 250SI, 250SJ, 250SK, 250SL, 250SM, 250SN, 250SO, 250SP, 250SQ, 250SR, 250SS, 250ST, 250SU, 250SV, 250SW, 250SX, 250SY, 250SZ, 250TA, 250TB, 250TC, 250TD, 250TE, 250TF, 250TG, 250TH, 250TI, 250TJ, 250TK, 250TL, 250TM, 250TN, 250TO, 250TP, 250TQ, 250TR, 250TS, 250TT, 250TU, 250TV, 250TW, 250TX, 250TY, 250TZ, 250UA, 250UB, 250UC, 250UD, 250UE, 250UF, 250UG, 250UH, 250UI, 250UJ, 250UK, 250UL, 250UM, 250UN, 250UO, 250UP, 250UQ, 250UR, 250US, 250UT, 250UU, 250UV, 250UW, 250UX, 250UY, 250UZ, 250VA, 250VB, 250VC, 250VD, 250VE, 250VF, 250VG, 250VH, 250VI, 250VJ, 250VK, 250VL, 250VM, 250VN, 250VO, 250VP, 250VQ, 250VR, 250VS, 250VT, 250VU, 250VV, 250VW, 250VX, 250VY, 250VZ, 250WA, 250WB, 250WC, 250WD, 250WE, 250WF, 250WG, 250WH, 250WI, 250WJ, 250WK, 250WL, 250WM, 250WN, 250WO, 250WP, 250WQ, 250WR, 250WS, 250WT, 250WU, 250WV, 250WW, 250WX, 250WY, 250WZ, 250XA, 250XB, 250XC, 250XD, 250XE, 250XF, 250XG, 250XH, 250XI, 250XJ, 250XK, 250XL, 250XM, 250XN, 250XO, 250XP, 250XQ, 250XR, 250XS, 250XT, 250XU, 250XV, 250XW, 250XX, 250XY, 250XZ, 250YA, 250YB, 250YC, 250YD, 250YE, 250YF, 250YG, 250YH, 250YI, 250YJ, 250YK, 250YL, 250YM, 250YN, 250YO, 250YP, 250YQ, 250YR, 250YS, 250YT, 250YU, 250YV, 250YW, 250YX, 250YY, 250YZ, 250ZA, 250ZB, 250ZC, 250ZD, 250ZE, 250ZF, 250ZG, 250ZH, 250ZI, 250ZJ, 250ZK, 250ZL, 250ZM, 250ZN, 250ZO, 250ZP, 250ZQ, 250ZR, 250ZS, 250ZT, 250ZU, 250ZV, 250ZW, 250ZX, 250ZY, 250ZZ.

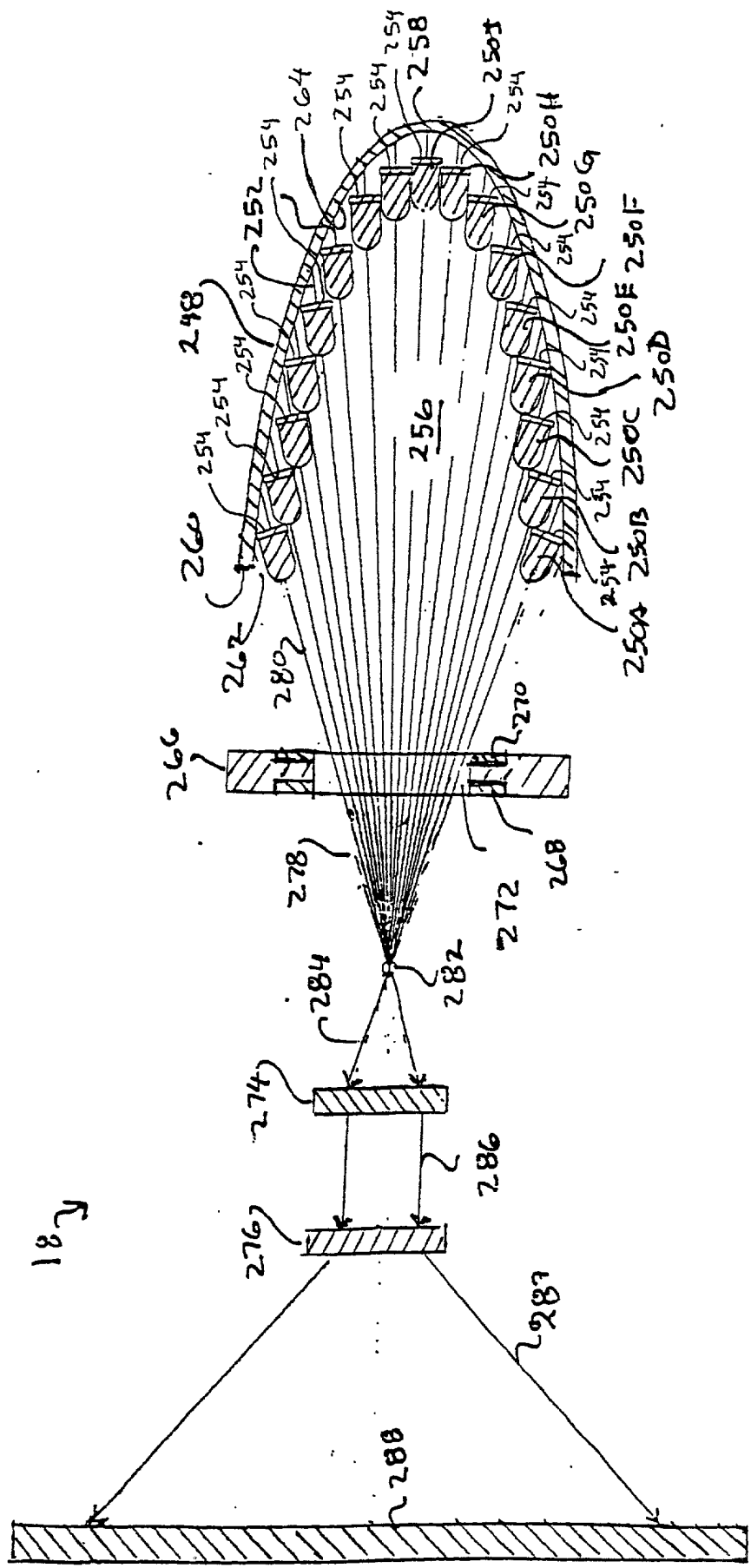


FIG. 15



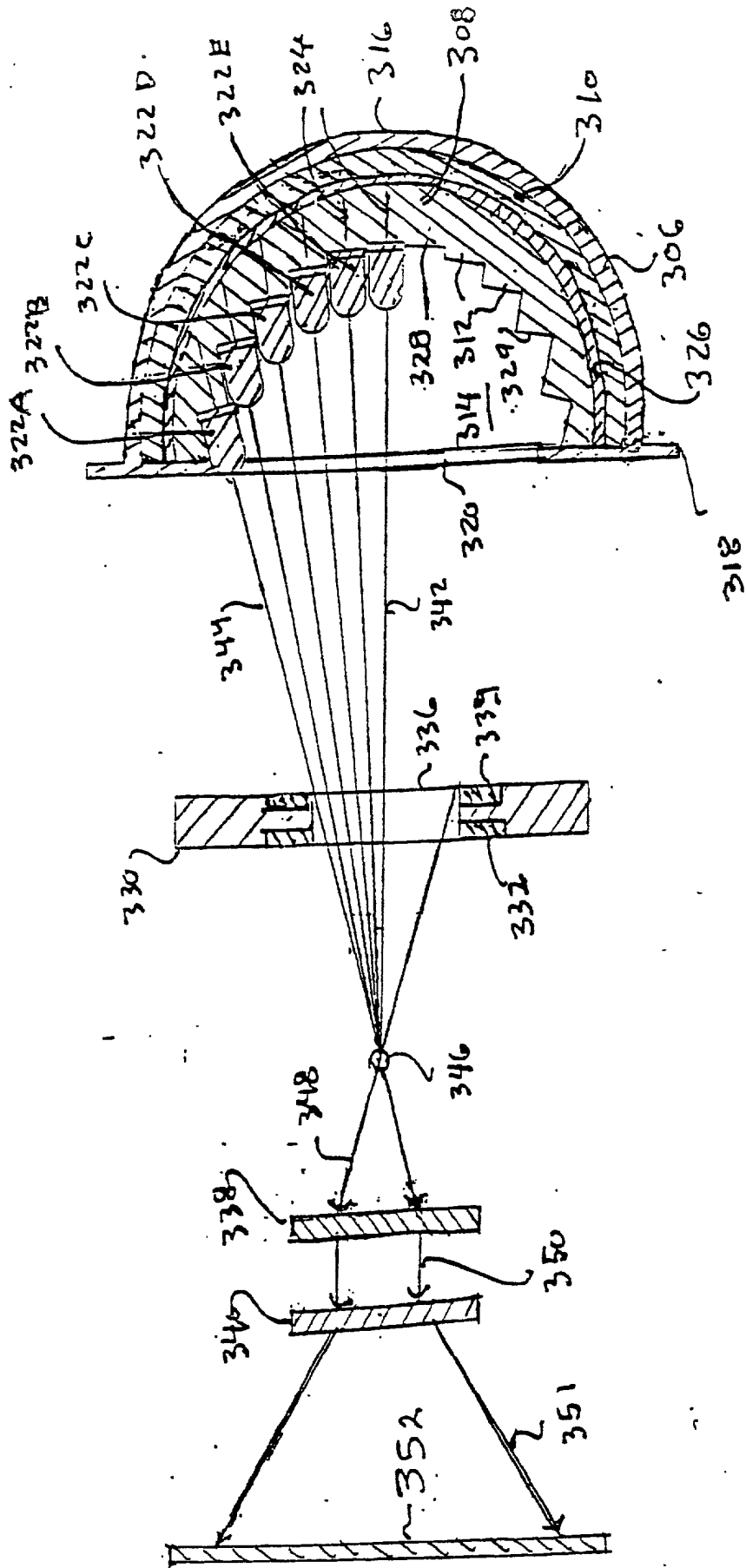
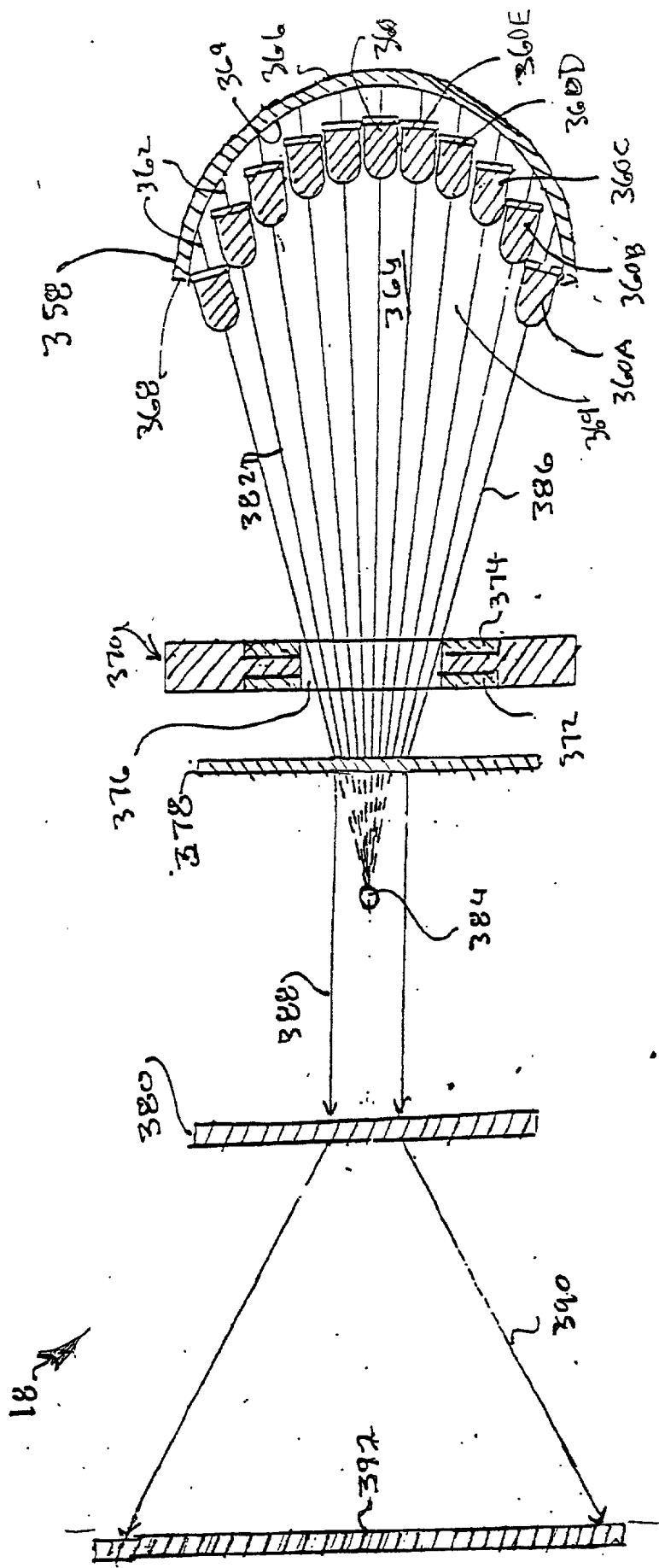


FIG. 17



1916

FIG. 19 is a perspective view of the structure of FIG. 18, showing the arrangement of the cells in the array.

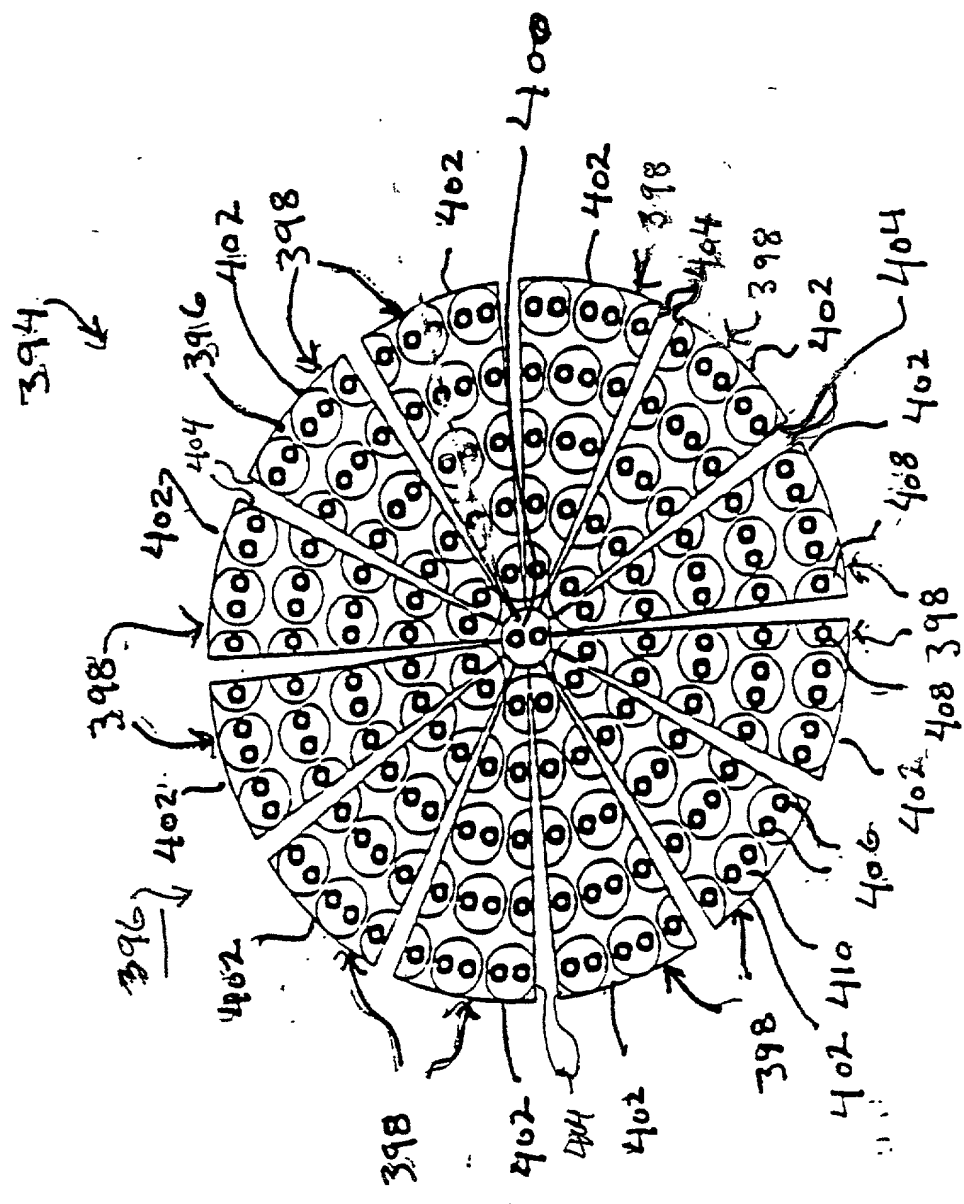


FIG. 19



18

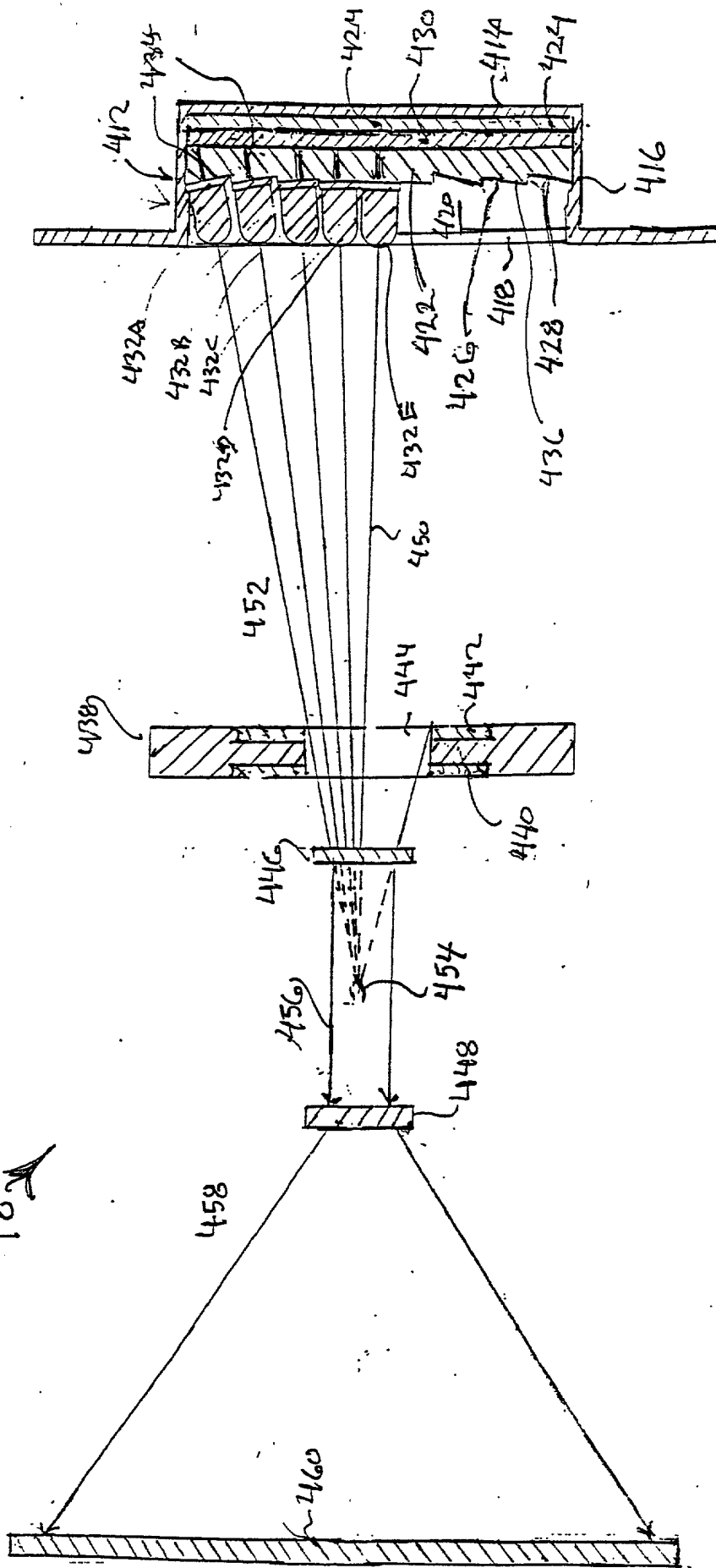


FIG. 20



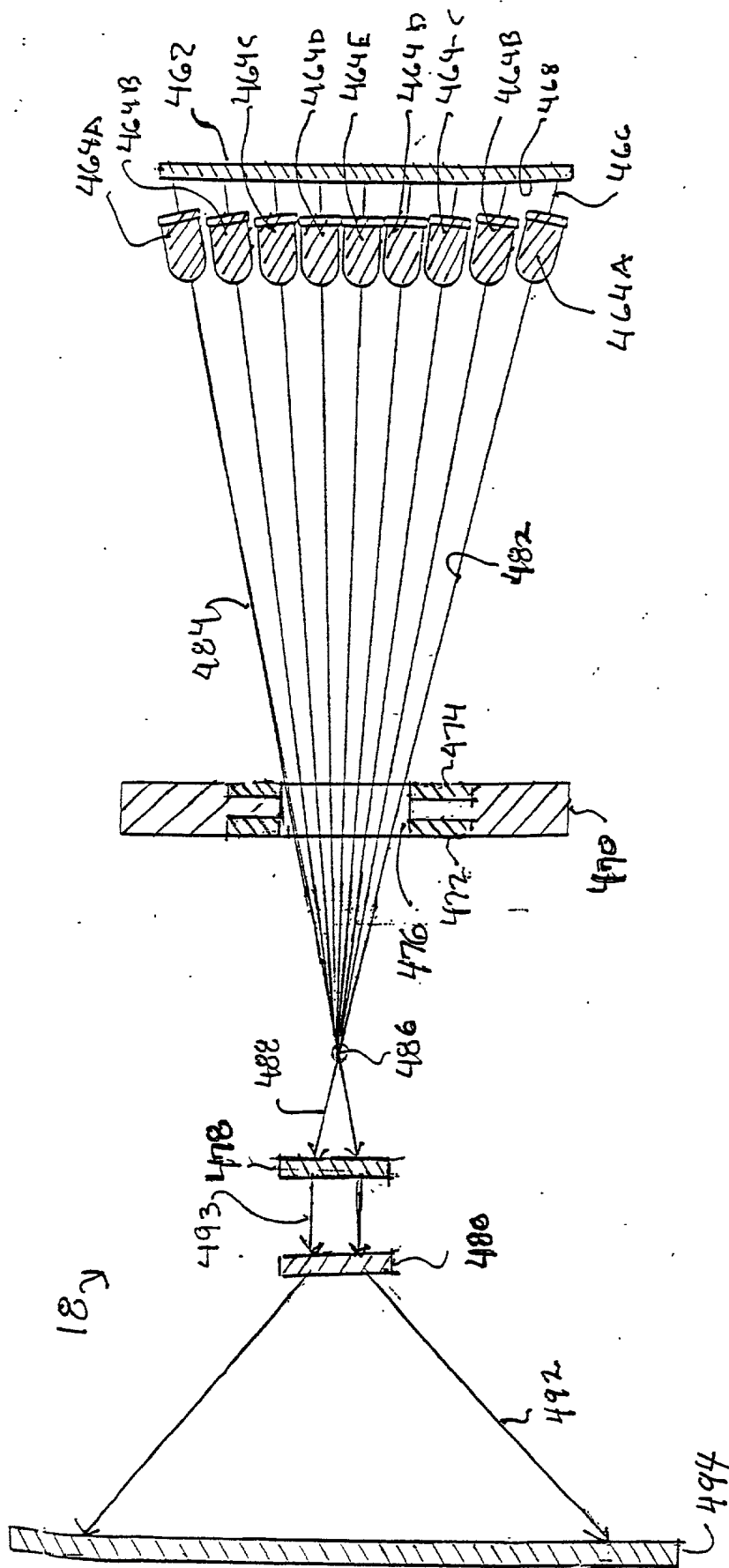


FIG. 21

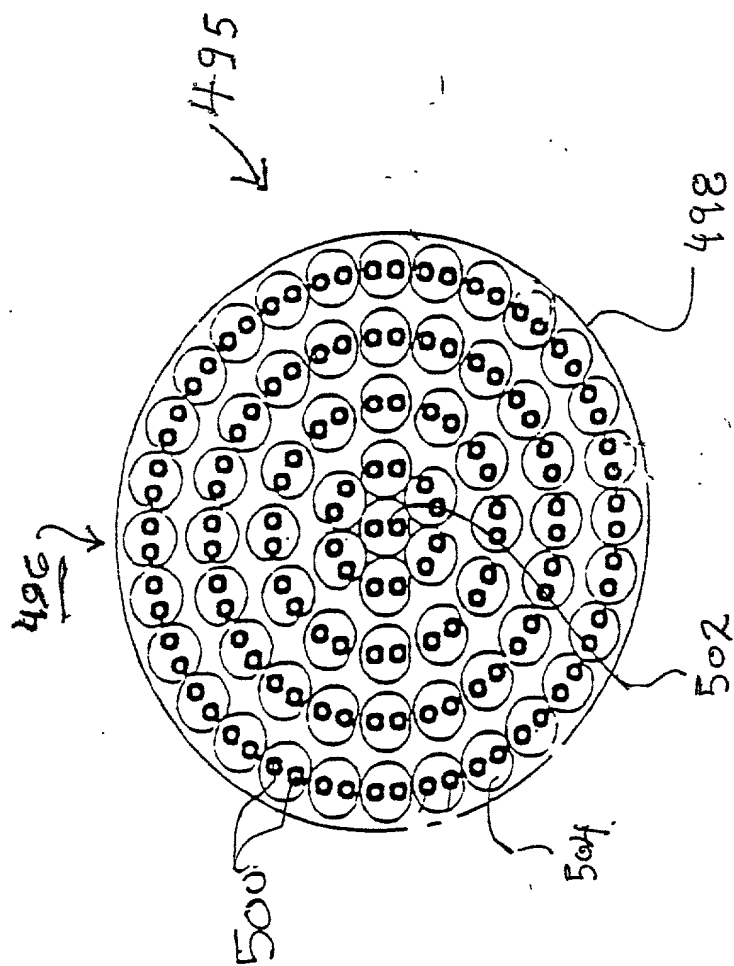


FIG. 22

13A

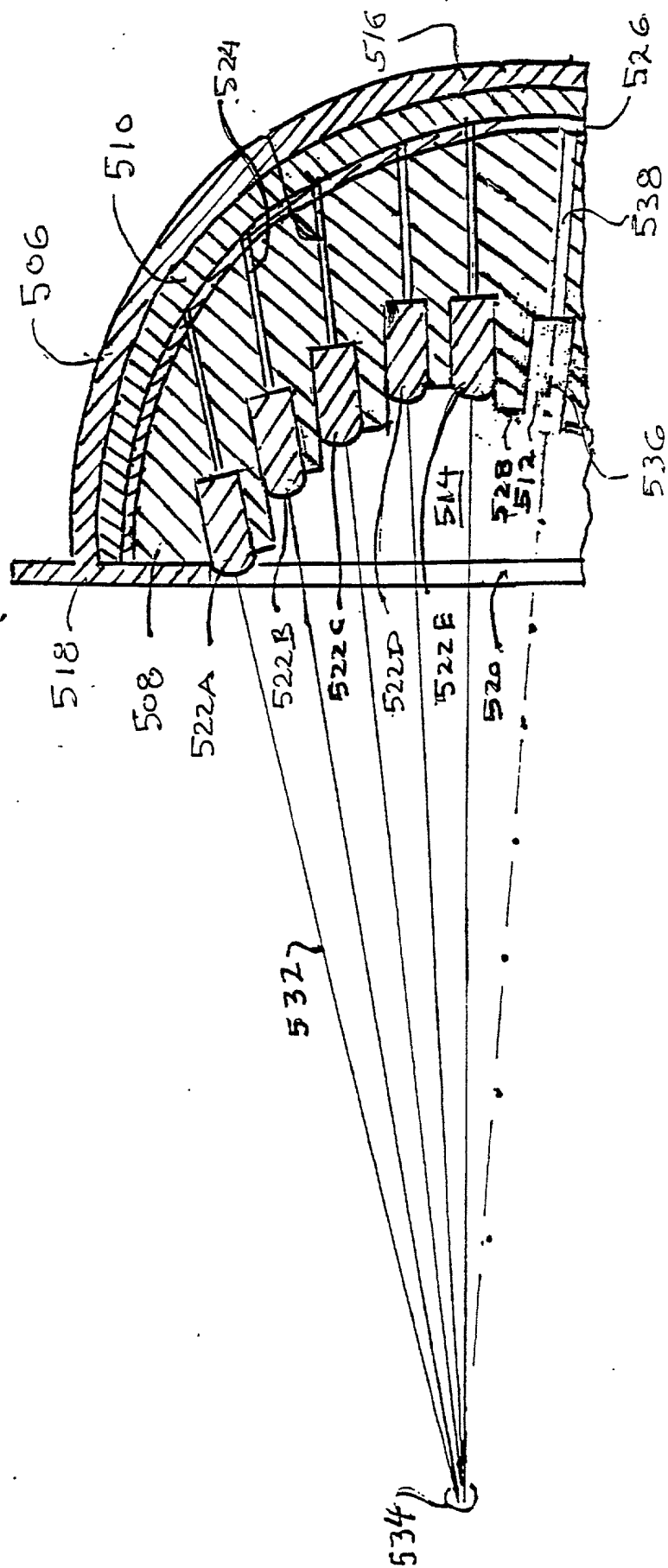


FIG. 23

FIG. 24 is a cross-sectional view of a portion of a structure, showing a curved surface 540 and a series of layers 542, 544, 546, 548, 550, 552, 554, 556, 558, 560, 562, 564, 566, 568, 570, 572, 574, 576, 578, 580, 582, 584, 586, 588, 590, 592, 594, 596, 598, 600, 602, 604, 606, 608, 610, 612, 614, 616, 618, 620, 622, 624, 626, 628, 630, 632, 634, 636, 638, 640, 642, 644, 646, 648, 650, 652, 654, 656, 658, 660, 662, 664, 666, 668, 670, 672, 674, 676, 678, 680, 682, 684, 686, 688, 690, 692, 694, 696, 698, 700, 702, 704, 706, 708, 710, 712, 714, 716, 718, 720, 722, 724, 726, 728, 730, 732, 734, 736, 738, 740, 742, 744, 746, 748, 750, 752, 754, 756, 758, 760, 762, 764, 766, 768, 770, 772, 774, 776, 778, 780, 782, 784, 786, 788, 790, 792, 794, 796, 798, 800, 802, 804, 806, 808, 810, 812, 814, 816, 818, 820, 822, 824, 826, 828, 830, 832, 834, 836, 838, 840, 842, 844, 846, 848, 850, 852, 854, 856, 858, 860, 862, 864, 866, 868, 870, 872, 874, 876, 878, 880, 882, 884, 886, 888, 890, 892, 894, 896, 898, 900, 902, 904, 906, 908, 910, 912, 914, 916, 918, 920, 922, 924, 926, 928, 930, 932, 934, 936, 938, 940, 942, 944, 946, 948, 950, 952, 954, 956, 958, 960, 962, 964, 966, 968, 970, 972, 974, 976, 978, 980, 982, 984, 986, 988, 990, 992, 994, 996, 998, 1000.

18

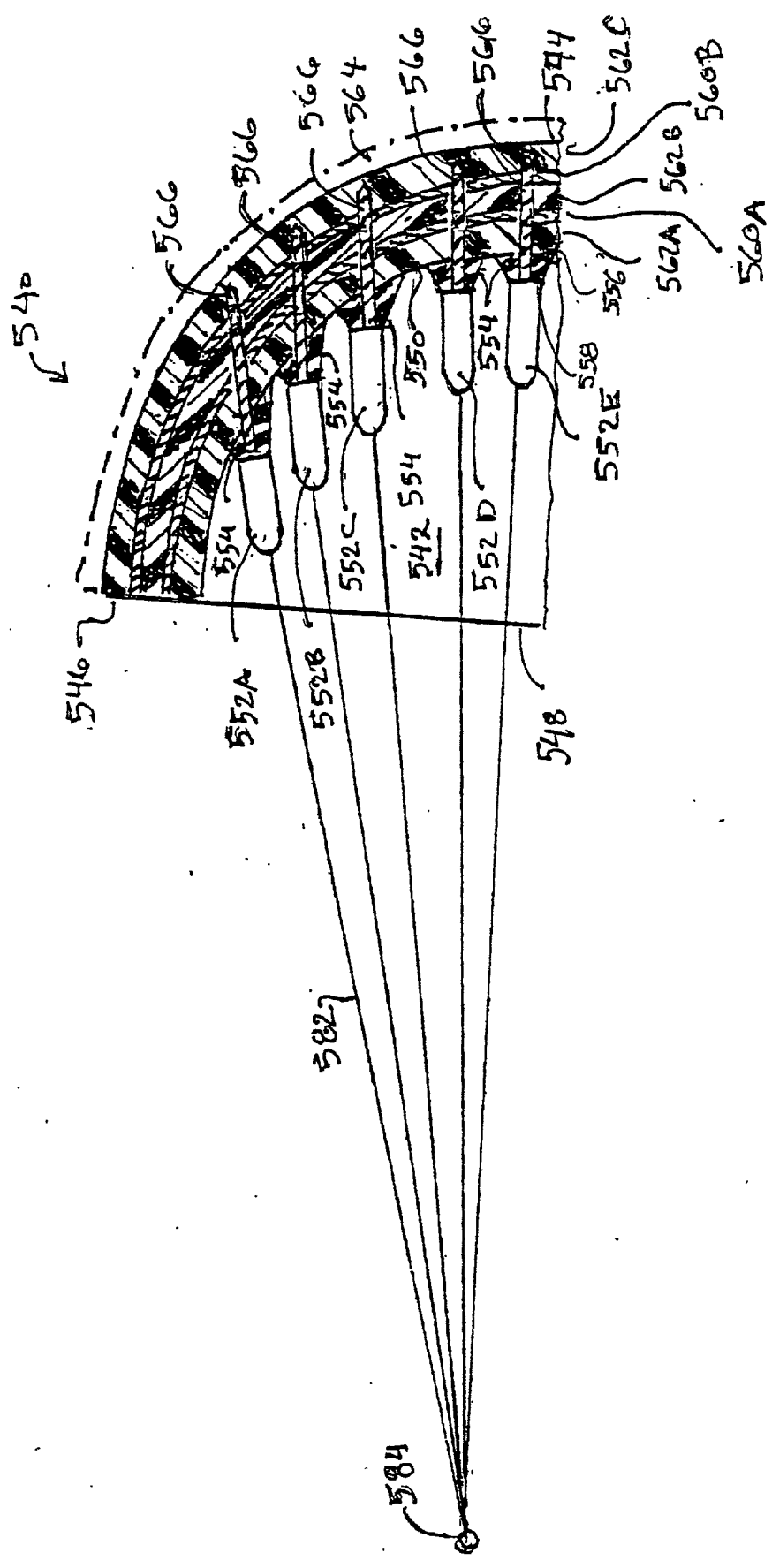
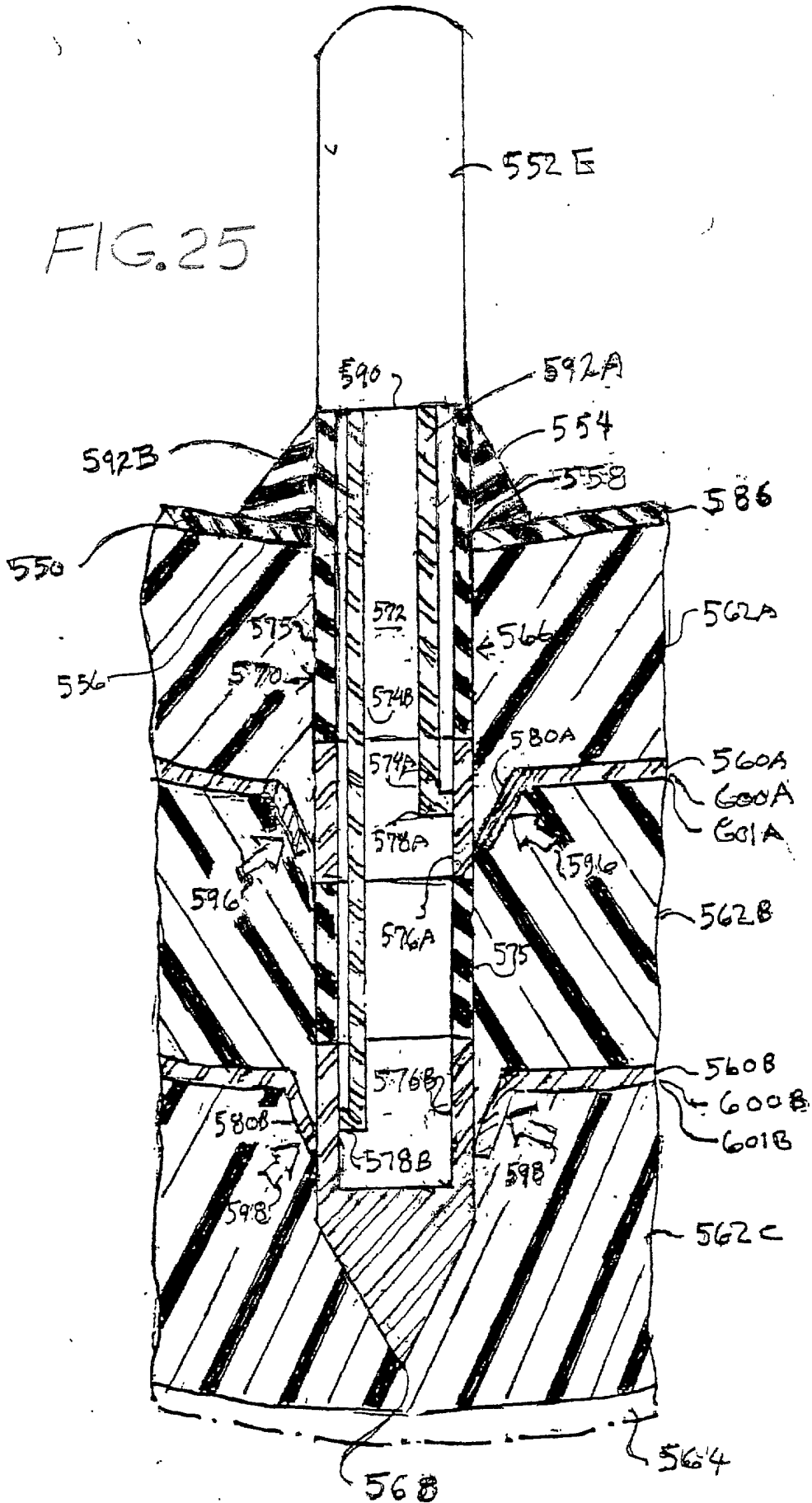
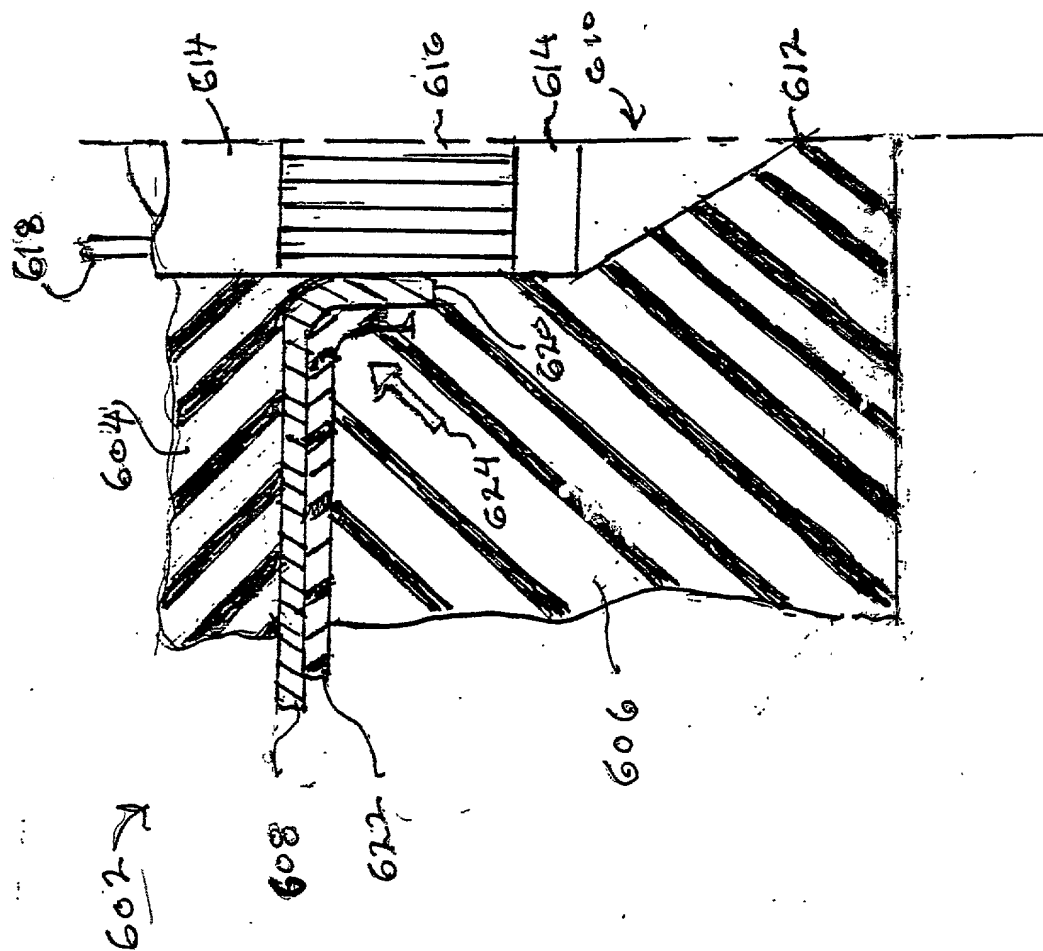


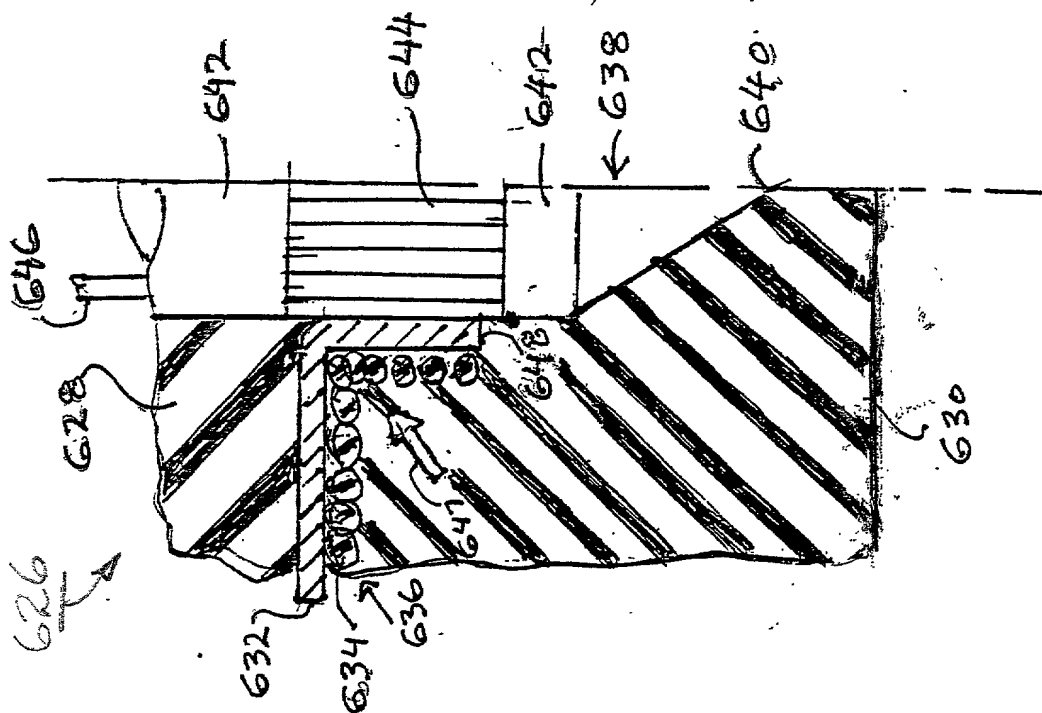
FIG. 24

FIG. 25

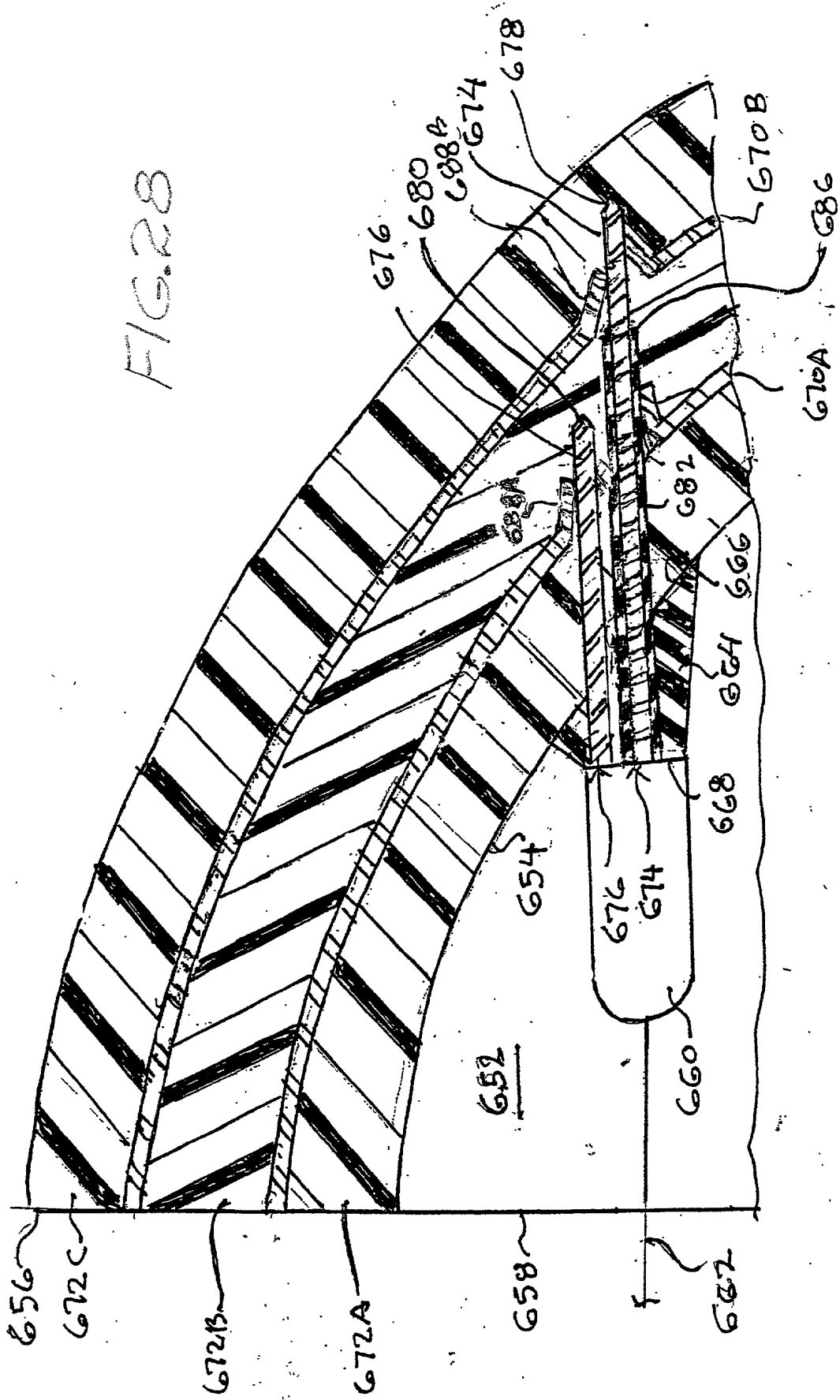




100



1957



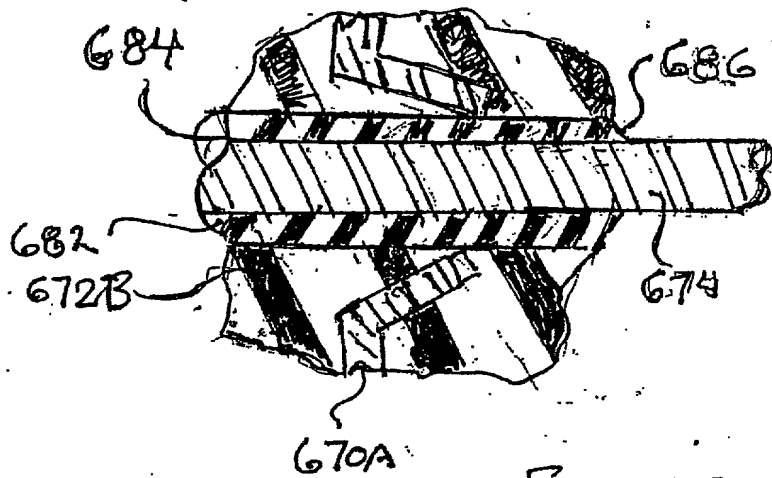
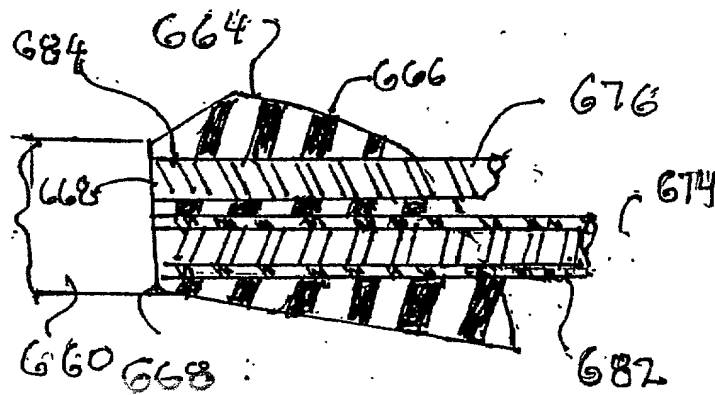


FIG. 29A

FIG. 29B





187

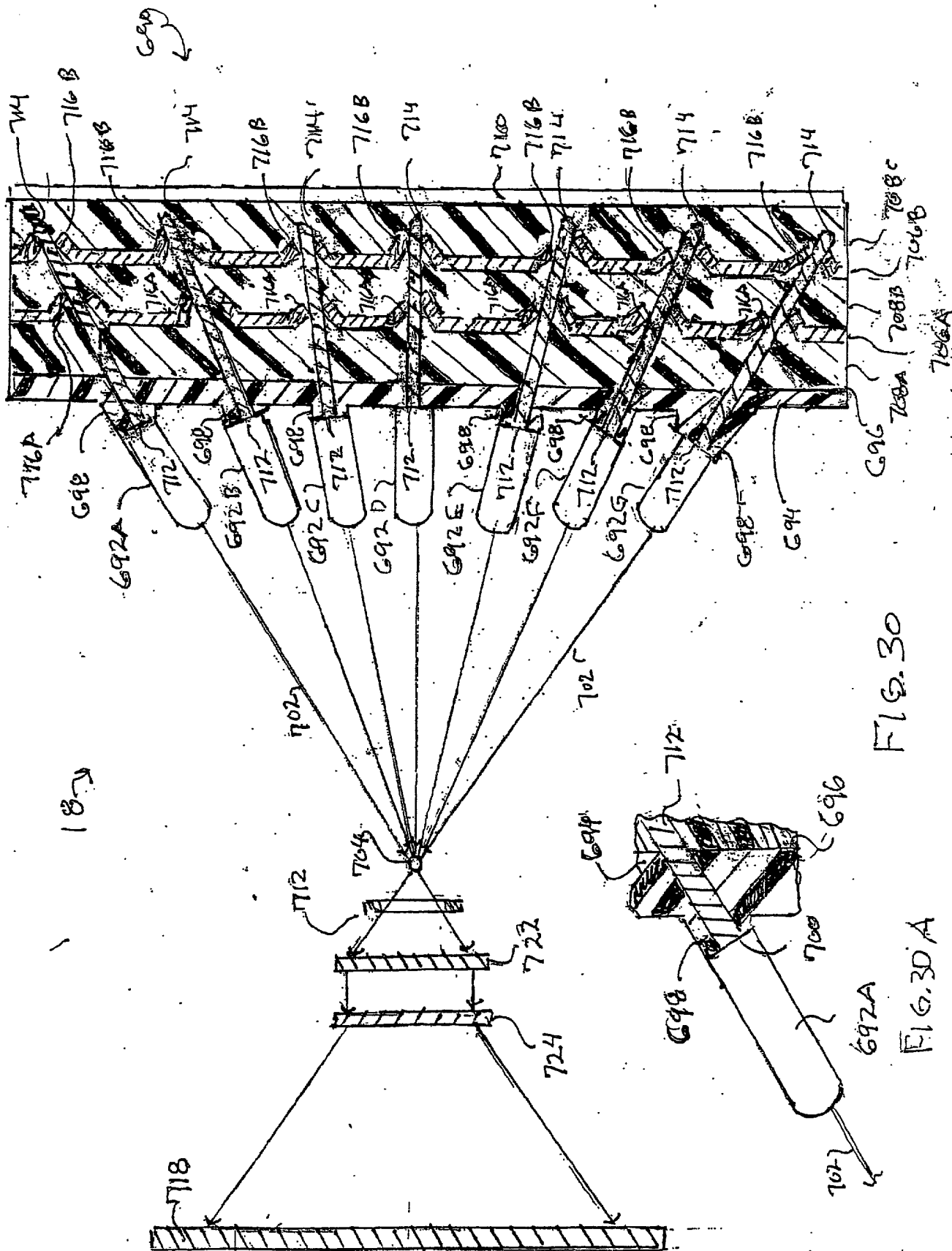


FIG. 30

FIG. 30A

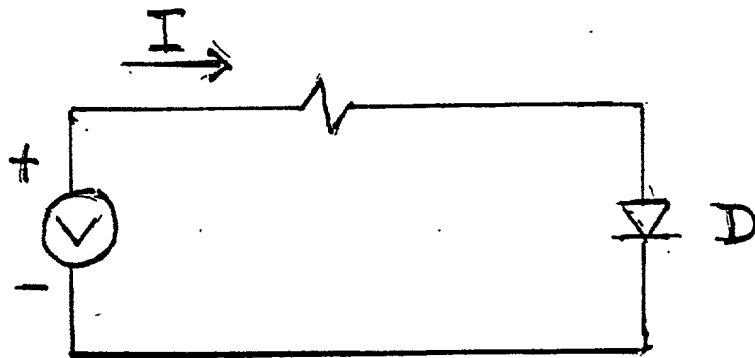


FIG. 31

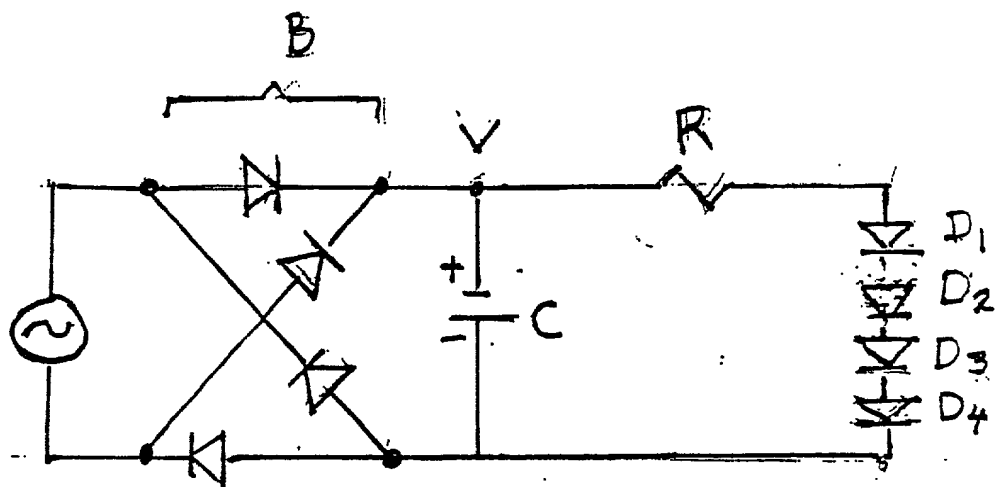


FIG. 32

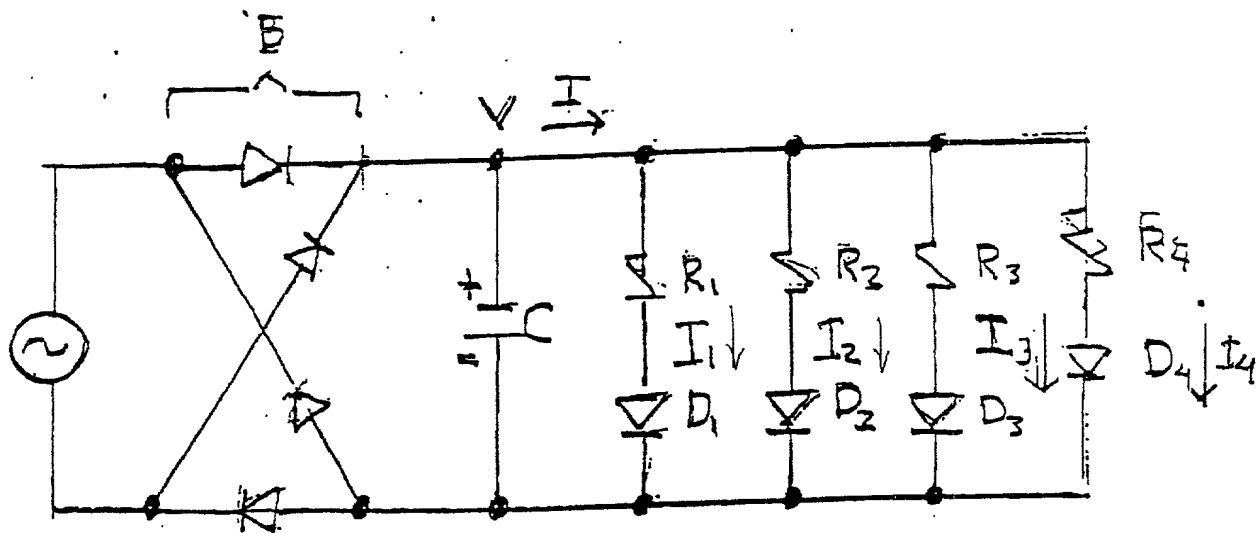


FIG 33.

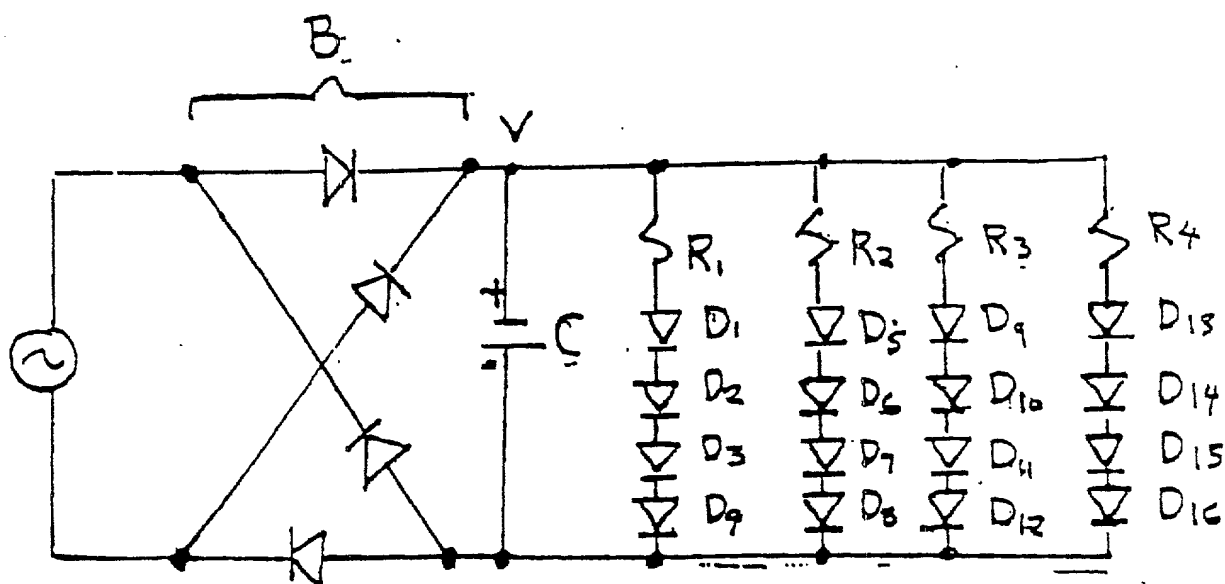


FIG. 34